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ABSTRACT

Perspectives on university-level studies and factors that affect student performance are considered, based on experiences and research conducted at the University of Bergen, Norway, and the University of Birmingham, England. Topics include the following: student goals; the use of lectures for larger groups; the importance of early feedback; factors affecting student success or failure; the transition from school to university; preparation at the sixth form level; prescriptions to moderate academic anxiety at the university; prescriptions for tutoring and research; the skills of teachers and the relationship between students and teachers; the degree of similarity of goals held by students and teachers; the link between a sense of learning competence and emotional well being; how disenchantment of the student occurs; characteristics of students who are prone to disenchantment; how to reduce the impact of disenchantment; psychological tests and the prediction of academic ability; components of learning competence; the dynamics of personal, social, and educational influences; the first examinations at the university; the development of academic skills in a short-term perspective; motivational effects of a test examination; assisting students in study difficulties; an educational service for learning how to learn; the cost of educational counseling services; reducing student attrition; and study methods in the sixth form and at the university. A bibliography is appended. (SW)

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HELPING STUDENTS *to learn at University*

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KJELL RAAHEIM
JANEK WAŃKOWSKI

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CONTENT

ACKNOWLEDGEMENTS 9

CHAPTER I *FROM SCHOOL TO UNIVERSITY* 11
The question of students' goals 12
The use of lectures for larger groups 13
The importance of early feedback 14
The question of different types of assessment and the problem of reducing tension 16

CHAPTER II *SUCCESS AND FAILURE AT UNIVERSITY: MAIN POINTS FROM A RANDOM SAMPLE ENQUIRY* 20
1. Coincidence of educational interests of the authors 20
2. Why some students succeed and some fail? 24
3. Findings and operational prescriptions 25
4. Pedagogical gap in transition from school to university 27
5. Preparation at the sixth form level: an interim measure 29
6. Prescriptions to moderate 'academic anxiety' at university 31
7. Prescriptions for tuition and research 32

CHAPTER III *ON THE PEDAGOGICAL SKILLS OF UNIVERSITY TEACHERS* 34
What are teachers and students like? 36
Are the goals of students and teachers after all more or less the same? 40
Enthusiasm and consideration — how far would it take us? 41
Co-operation as the fulfilment of mutual contracts 44
Must we learn how to teach at university? 46

CHAPTER IV *DISENCHANTMENT, A SYNDROME OF DISCONTINUITY OF LEARNING COMPETENCE* 50
1. How scholars became 'enchanted': a sense of learning competence as a currency of emotional well being 50
2. 'Enchantment' of academic pupils 52
3. How disenchantment comes about: differences in the mutual support between students and teachers at school and at university and a state of imbalance between exploration and security 53
4. The student's role 54

5. What kind of person may become prone to disenchantment? 55
6. How to reduce the impact of disenchantment 58
7. How to narrow the chasm of differences in tuition 59

CHAPTER V *THE NEED FOR DEVELOPMENT OF STUDY SKILLS* 60
Psychological tests and prediction of academic ability 60
Which cognitive processes may be developed 63
The student as the architect of his fortune 66

CHAPTER VI *ON THE VAGARIES OF STUDENTS' MOTIVATIONS AND ATTITUDES TO TEACHING AND LEARNING* 69
1. Reflections on the phenomenon of students' wants 69
2. Components of learning competence 71
3. Dynamics of circularity of personal, social and educational influences 78
4. Back to the 'phenomenon of water' and the 'phenomenon of students' 80

CHAPTER VII *THE FIRST EXAMINATIONS AT UNIVERSITY* .. 83
The solving of intellectual problems. Experiments with test examinations 90
The development of academic skills in a short-term perspective ... 92
Motivational effects of a test examination 94
An exercise in prepared examinations 97

CHAPTER VIII *ASSISTING INDIVIDUAL STUDENTS IN STUDY DIFFICULTIES* 101
1. The giant spring of youth 101
2. Theoretical standpoint: the individual as a self-teaching agent 105
3. Predictive prescriptions: who is likely to lose learning competence at university; reactive depression and loss of academic competence 110
4. Tuition and educational counselling as a help to re-establish academic competence 116
5. Reflections and provocations: what to do when everyone is different 120
6. An example of study assistance procedure 126

CHAPTER IX *LEARNING HOW TO LEARN AT UNIVERSITY: THE CASE FOR AN EXPERIMENTAL STUDY ASSISTANCE SERVICE AND ECONOMIES OF EDUCATIONAL COUNSELLING* 134
1. Reducing wastage and attrition at University 134
2. Study methods in the sixth form and at university 136
3. Acquiring learning skills 137
4. An educational service for learning how to learn 138
5. The under-currents of compassion and economic in students welfare 140
6. The difficulties of evaluation 141
7. The work of the unit and its cost-effectiveness 144

CHAPTER X *SUMMING UP: REFLECTIONS AND OPERATIONAL PRESCRIPTIONS* 150
1. Teaching and learning is not a process 150
2. Learning and tuition, inter-reaction and 'stress innoculation training' through challenge and protection 152
3. Study methods, techniques, and sociability 155
4. Conclusions, recommendations and operational prescriptions; when wishful thinking leads to wishful doing 160
5. Virtue is practice: research-cum-study assistance and university teachers training service 163

REFERENCES 171

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Bergen, December 1980

Kjell Raaheim *Janek Wankowski*

CHAPTER I

Kjell Raaheim

FROM SCHOOL TO UNIVERSITY

The following episode may serve as a partial explanation of how I came to undertake the writing of this book.

After more than 20 years' experience as a university teacher, I was preparing the first of a series of lectures, to form part of an introductory course in psychology, philosophy and logic, compulsory for all new students of Norway's major universities. As usual my intention was to start by introducing the subject, and by explaining the details of the syllabus. I suddenly realized that I was in the process of preparing a performance which, to some 300-400 students, represented their very first confrontation with teaching at university, without my giving this important fact any particular consideration.

What is a lecture like as an educational phenomenon? In what way does the role of the student as listener differ from the task of the pupil in the classroom? Is some activity expected of the student? Should he ask questions and take notes, or is the lecture theatre a place for passively receiving the benefits of oratorical display?

Admittedly these are questions of a rather trivial nature. But do they have to be asked again by each new student? Or rather: Is it necessary that the students, individually, spend a great deal of time in seeking answers to such questions?

On the occasion referred to I was given confirmation by my audience that no clear conception existed among them as to what a lecture was supposed to be, and what *they*, as listeners, were supposed to do. The brief explanation I was able to give that time was far from being sufficient, but hopefully of *some* value.

What does the situation look like when it comes to the problems of changing over from going to school to becoming a student at the university? Is the situation today, as is often argued, especially difficult, since a greater number of young people seek higher education in many countries?

When I first began to look for relevant research findings I discovered that little had been done in my own country. I found that in Birmingham Wankowski had spent a number of years looking into the question of factors for academic success. His points of recommendation to schools and university, for bridging the pedagogical gap between those two instititions, are best explained by himself, and so I shall advise the reader to study Chapter II of this book. Here I only wish to present some comments on what I have found particularly important to Scandinavian academics, who are at present trying to improve the methods of tuition at university. Perhaps it is not unlikely that others would find the points equally important.

The question of students' goals

Wankowski has found that the more successful students are those who have a somewhat clearer picture of their future professional career than the rest. This is a finding that might puzzle the experienced university teacher who remembers the rather well articulated outburst of previous generations of students, towards more freedom to concentrate on whatever was found interesting and important, without considering an efficient way of training for professional roles.

Admittedly there are reasons to believe that student attitudes have changed over the last decade or so. The general care of today of not throwing away resources, seems to have led to the awareness that time is also an important factor. So the student challenge is perhaps one of not throwing away any time on what is judged to be a fruitless enterprise and on what seems to be totally unrelated to his future tasks. But in spite of this, as Jacobsen (1978) has reported, a more general aim of extending the world of knowledge still seems to be a popular theme for learning at university. Whereas students who had some definite goal in mind generally did better than students who were unable to give a clear statement of why they had entered university, a closer look at the results, on a particular course, would reveal that, if the content of that course was not seen as more or less directly relevant to future work, a student who had expressed some definite wish for an occupational role would tend to do *less well* than one who had simply stated that his reasons for entering university could be summarized as a general wish to learn more.

This particular motivational problem naturally leaves us with the question of who is going to make decisions where the contents of courses are concerned. I do not wish to enter into a discussion of this at the present point. But it is perhaps worth noticing that whereas only about one percent of the

new students of a decade ago hesitated when asked to list the subjects of their choice upon entering a Norwegian university, more than thirty percent of today's students are found to be uncertain.

The use of lectures for larger groups

As can be seen from his own list of recommendations, Wankowski suggests that pupils in the sixth form be given an opportunity of becoming used to mass lectures and to be trained to integrate information gained from lectures and reading. At the same time he argues that a reduction in the size of audiences in lectures is needed at university level. These points in my view actualize the question of what is, normally, the purpose of the university lecture? Perhaps one would find that only a few teachers intend to act as substitutes for students reading the textbooks. Still there is reason to believe that comparatively few lecturers have a clear enough picture of the role their series of lectures might play in the sum total of learning activities of the students. Is it, for instance, possible to let a particular one hour of listening to a lecture somehow be tied to a given number of hours spent in reading some specified textbooks? Is it on the whole possible — and advisable — to let the students know how the lecture should be fitted into a more comprehensive instructional scheme? Or should we just keep on letting the occasional lecture play the role of a sudden and often unpredictable meeting of a subtle academic mind with the, as yet, less sophisticated members of the audience?

In my opinion lectures ought to be given a role to play that cannot, as easily, be played by other forms of tuition. Needless to say, if the teacher wants the students to attend, he must then also see to it that the role in question is one for which the students feel a need. But this ought not to be done in an artificial way. Recently, when I published some of the results of my experiments on the problem of students' attendance (see also Chapter VII), I received a letter from a senior lecturer of a Norwegian university. Having read that I had stressed the point that students would in fact attend lectures regularly, if only the teachers showed concern and presented the students each time with some useful information, he wanted my reaction to the following plan: As part of a regular course let there be some printed material for the students to read when they want to. But let there also be some gaps, by way of missing portions, in this material. So, if the students want to have access to the whole of the syllabus, they have to attend the lectures, where the master of ceremonies orally presents the missing links!

I had to explain that this was not quite what I had had in mind when arguing that the lectures ought to contain something that could not as easily be found in books! But the story seems to indicate that a need exists for a

discussion among university teachers of the more fundamental part played by the traditional lecture in today's world of tuition.

Sometimes the argument is raised that when you have something like 500 students in the lecture room, there is not much hope for a fruitful teaching situation. So when Wankowski argues that a reduction in the size of the audience in lectures at university is needed, a number of teachers would tend to add that this is an absolute claim.

The situation in Norway is such as would normally give the university teacher who is running introductory courses in philosophy, logic or psychology a rich experience with large groups of students. These courses are compulsory for all new students, so each year literally thousands of students, who are unfamiliar with university style lectures, find themselves in huge lectures theatres, where a group of 200 would be regarded as a small one.

I agree that new students, in particular, would profit from being taught in groups small enough to make possible a two-way communication. But if the cirumstances, financial or otherwise, are such as to put the lower limit of the number of students in a lecture at 250, it might be profitable to discuss the possibility of simply *doubling* the size of the audience, in order to spend the money thus saved on some other activity that might enhance the learning situation for the students. Sometimes, when the minimum size of the audience forces a lecturer into a one-man, or a one-woman show, the restriction on the audience is only one of a technical nature. If the lecture does not take the form of a courageous struggle to pass on information in a better way than does the well written textbook, and the teacher instead gives a demonstration of how some knowledge may be used to cope with the baffling, exam-like questions, it might be better to let into the lecture theatre all who are able to see and hear the things presented on 'the stage'. Admittedly such a stage 'show' must be preceded by some preparatory reading on the part of the students who should also be prepared, by some carefully worked out instructions, on how to 'follow a lecture'. An effort put into these instructions should result in an educational gain. In my experience, teachers often fail to discuss the general problems of lecturing till they are forced to do something by the size of the audience.

The importance of early feedback

Ever if, in a number of courses at university, the student finds different forms of assessment, there can be no doubt that, to a large number of students, their own progress seems far more difficult to judge than it used to be in school. Also, when on a rare occasion some feedback is given, it has the

form of a much more dramatic 'pass or fail' verdict than has been met before.

The need to know if one is 'on the right track', in the 'yet-to-be-explored' and perhaps not even altogether 'promised land' of university studies, is deeply felt by many new students. So when Wankowski says that the students ought to be given more frequent opportunities for evaluation of their progress, it might be agreed to, provided that the students do not feel that an 'extra assessment' is another hard burden to take on. Some experiments, later to be commented upon in more detail (see Chapter VII) might perhaps be worth mentioning here.

In the last few years we have had the opportunity at the University of Bergen of investigating how various factors would influence the progress of students during their first year. As part of an experimental program, optional 'test-examinations' have been arranged at certain intervals prior to the final, official one. The great majority of the students have welcomed this opportunity and, when asked, have put their names on the list of 'volunteers' to participate in this scheme. When, on occasions, the number of interested students has exceeded our capacity for marking the 'test-examination' essays, it has been decided to draw lots to determine who will take part in a test on a particular day.

We have found regularly that even when students are queueing up to fill the places of some friends who might be sick, on the next day, when the test-exam is taking place, perhaps fewer than ¾ of the candidates turn up. Obviously not all forms of feedback work all the time. Even a 'test-examination' may evoke the fear and anxiety generally associated with assessment situations of the past. So although a student might feel the need of getting information on how he succeeds in coping with the challenges in academic work, he might still hesitate in placing himself in the position of being told.

We have tried to avoid the pitfall of turning the 'test-examination' into a 'recent memory test', or a test of the knowledge of the subject, by letting the students know in advance which parts of the syllabus will be drawn upon each time. But even so, the students would find themselves 'unprepared' to such an extent that, at the last minute, they decide not to ask for the bad tasting, if preventive, medicine of a low mark. And lecturers have very little to offer when it comes to the question of telling students what an academic discourse is all about, how they ought to prepare themselves or, in short, what it is like to study at university.

The feedback needed is not only one of how well the student has succeeded in reproducing some parts of a textbook. So even if the lecturer is tempted to assess the answers to questions in the test exam on factual knowledge only, the must be willing to *try* to give the students some information about their ability to take a critical attitude, to make fair judgements, and to give a balanced and

mature presentation of the broader perspectives of a problem area. In my opinion universities might be facing an increasing challenge as far as these matters are concerned, in the years ahead, since the number of new students with very limited knowledge of the academic world is increasing in many countries. In a number of cases it is not only a question of whether or not a given student makes the necessary progress within the subject chosen. It is also a question of whether his field of study is one that will turn out to be a sensible choice. In some fields we have a total absence of counselling arrangements that might, in some cases, prevent a student from going through years of hard work, only to find that the vocational consequences of his academic endeavours are quite different from what he has planned for himself.

The question of different types of assessment and the problem of reducing tension

Many attempts to improve the methods of tuition at university in recent years have resulted in near failure because the traditional types of examinations are still there, at the end of the road. This situation may vary as the autonomy of the university varies from one country to another. In Norway there have been some definite changes in the rules about university examinations. We have seen attempts at essays or research reports, prepared at home, take the place of the old fashioned 8,10, or even 12 hours sweat at the desk in the Great Hall. In some fields two or more students have been allowed to work together on their final thesis, and oral examinations have either been omitted altogether, or replaced by group discussions of some central questions from the syllabus. Sometimes the students are allowed to choose between different forms of examination, and this reform seems to have been particularly welcomed, since students may differ in their preferences for demonstrating the results of their learning. Some students like the challenges of a written examination paper with a limited time at their disposal and tend also to enjoy the atmosphere of an oral examination. Others, and this might be true for the majority of students, become highly nervous in situations where their performance on the day has important consequences for their future professional career.

As far as I know relatively few investigations have been set up to look into the improvements or changes in examination procedures. The question remains whether or not two weeks work at home, say, gives rise to less tension than a one-day test of the traditional type? According to my personal experience, and judging from the examination *results*, a number of students seem to have great difficulties also in coping with a two-week task at home. Some of them are found to hand in essays, which both with regard to quantity

and quality are quite comparable to the results of a 10-hour test of the traditional type. Admittedly one would doubt in such cases that the student has actually been working on his essay during much of the time allowed. But the important thing is that this does not necessarily mean that he has not felt the tension of the examination over the whole two-week period.

Meagre results and low marks obtained by the students who work within new examination systems might also be due to the lack of previous experience with these types of tasks. The writing of a 'semester', or 'term essay', as it is often called, needs definite instructions as to how to proceed. It seems to me that it would be more appropriate to present the students with an assessment situation which is equivalent to situations later to be faced in 'real life'. Then, there would be no need to prepare the students how to solve difficult theoretical riddles while sitting on an uncomfortable chair in some big, cathedral-like hall, *without* the aid of the natural tools - books.

The tension of examinations may perhaps be somewhat reduced if teachers were more explicit in explaining to students what is in fact expected of them since the clarity of the questions set on a number of occasions may leave much to be desired. It may rightly be argued that these are the problems which will not disappear even if the students are given a free choice between different *types* of exams. Is is also difficult to prove that different types of assessment are equivalent, and there is no guarantee that the student will choose a type of examination that will turn out to be for him a better way of demonstrating his knowledge.

Maybe there is reason to believe that the situation at university will always be less 'fair' than the examination system in schools. At university the number of students taught in different groups will vary considerably, thereby making the basis for comparison of the effectiveness of teaching and assessment change all the time. The examination tasks set in university are often highly dependent on the individual lecturer's points of view and on his or her ability in formulating a question. Generally we have to do without the standardization and the stricter 'norms' used in various schools.

It can be argued on the basis of the factors mentioned above that in university assessments nearly all the rules of psychological testing are violated. Both the reliability of the examination results and their validity as expressions of knowledge and insight into a subject matter can be said to be highly questionable at times. How then are we to make improvements, when at the same time seeking to reduce the tension inherent in the assessment situation?

I do not wish to advocate the view that within university assessment we need a system that will give the individual student the place intended for him by the Almighty, provided he cares to work as hard as all the others. I would personally very much regret it, if the examinations at university were better

specimens of *tests*, in the belief of providing the 'correct picture' of each individual's potential. Over the years we have taken some pains in trying to level out individual differences of both an economical and a social nature. A sharper distinction between people on the basis of intellectual abilities, therefore, can scarcely be said to constitute a worthy goal.

In my view the marks attained at university ought also in the future to be looked upon as *unfair*, in the sense that one should be aware of the fact that they might have been different under different circumstances. This means that one should understand that some coincidence might have occurred, that the candidate might have performed better (or worse) with another type of test, and that the marks, on the whole, only tell something about the situation here and now.

Some tension before exams is perhaps unavoidable, even if the students have the opportunity of deciding themselves in what manner they will demonstrate their knowledge or abilities. It is even conceivable that the tension might be increased by the very fact that one has to choose oneself, with the possibility then of making a wrong decision!

A greater opportunity for students to *work together* in the final exams should, in my opinion, be developed and I would like to mention some of the advantages of such a provision.

For one thing, the working situation in this case is the more natural one. In 'real life' we are seldom forced to work alone in academic enterprises. Even professors seek help and advice from colleagues! Next comes the possibility that this would be a situation of less tension, since the individual student is not left with sole responsibility for the result. Furthermore, there is a chance that marks in this case would be seen as indicators mainly of the quality of the present *work* and not as signs of personal abilities.

As already mentioned, there have been some examples of students working together in written examination tasks in Norwegian universities. But rarely have we tried to let group discussions take the place of oral examinations on an individual basis, although in some fields this type of assessment has existed for years.

An oral examination situation where five to eight students take part in a discussion, may not seem to lend itself to an assessment of an individual student. Still, to some examiners, this situation may be regarded as highly satisfactory, if some necessary conditions are met.

It is important that the students are *trained* to work together as a group and to present their knowledge by means of a discussion of the topic chosen. Without some experience and skill in the art of letting other people have a word, the session might be a failure. And it is this very point that creates the most advantageous part of the arrangement. It is not a question — as is so

often the case — of demonstrating one's own brilliance at the cost of others. A successful outcome of taking part in discussions depends on the ability to give others a chance of showing what *they* know.

Both students and teachers need to learn the variety of new ways of working together. As for the number of students who might profitably share a certain task, my personal suggestion would be that with *written* assignments, only in exceptional cases should more than two students work together, whereas in *oral* examinations five to six students would probably make a suitable team.

It might be objected that in such cases the odd 'not-so-bright' or partly uninformed student may be helped through by his fellow students. Here one could point to the fact that on the higher levels in the academic world we also have people with various forms of 'uncontrolled' accomplishments. And one could also add that in society there is a generally accepted rule of encouraging the able to help and support the less gifted ones.

A number of suggested reforms would no doubt increase concern amongst academics for deeper understanding of the learning processes *before* a certain kind of assessment takes place. An awareness by the teacher of his student's steady progress during the course, should make the final examination less important. And generally, a discussion of forms of assessment should always take as its point of departure, the particular nature of the course.

CHAPTER II

Janek Wankowski

SUCCESS AND FAILURE AT UNIVERSITY: MAIN POINTS FROM A RANDOM SAMPLE ENQUIRY

1. Coincidence of educational interests of the authors

It seems that our co-operation in writing this book has developed from a series of very different, if not almost opposite approaches to the problems of learning and teaching.

Whilst Raaheim, in his endeavour to understand and to generalize the principles and laws of learning, proceeded along the path of investigating the cognitive processes involved in reasoning and, by implication, in acquisition of skills for coping with the contingencies of life, I have, from the beginning of my studies, tried to understand the fragments of the idiosyncratic feelings accompanying learning at the strictly individual level.

I have, for pragmatic reasons, eschewed the temptation to look for generalized laws of the emotional concomitants of learning and had to be satisfied with a collection of tentative, mini-inferences and precepts which, I hoped, might one day be useful to patch up another urgent job of helping someone to overcome some block or difficulty in getting on in the scholastic world.

I do not know if it might be fair to say that whilst Raaheim's strategy, in his search for the understanding of learning, was to proceed from theory to practice, mine was certainly one of proceeding from practice to practice interspersed with reading of other people's theories, which I always regarded very highly, but which I tended to use as tools of my trade of 'trouble shooting' in tuition.

Also I do not know the reasons for Raaheim's choice of line in psychological studies. Mine have stemmed partly from the necessity of having to cope in schools, from 1950 till 1961, with mainly those children who were regarded as most difficult to teach, or as having great difficulties in learning. My post-graduate studies of the so called 'non-intellective' aspects of learning

had somewhat more deeply personal roots. Reflecting upon experiences of war, I had lost faith in the rationality of mankind and turned to the studies of the emotional aspects of learning. The war swiftly taught me that intelligent and clever people often commit and perpetrate the most terrible deeds and, having a chance of exploring the reasons for human behaviour, I began to look at the problems of motivation, particularly in early learning. The psychology of emotions as concomitants of reasoning seemed to have been an obvious, double-edged tool which would, at the same time, help me to dissect the hidden motives of intelligent people's foolishness, and to do my work as a teacher of those who were, apparently, slow in learning. Here, as all those who have taught such children know only too well, recognition rather than cognition sparks off the desire to learn anew. The 'familiar therefore pleasant' principle was the key to their minds, bruised and confused by their failure in schooling. And here the poet's pedagogical motto became my most useful motto: 'Men must be taught as if you taught them not, and things unknown proposed as things forgot'. (Alexander Pope).

And this is where Raaheim and I met, for his writing on problem solving and intelligence, as well as his other works, strike the same theme:

> 'I have myself come to look upon intelligence as a means whereby a person is able to deal with his partly unfamiliar present in terms of his better known past, (Raaheim,1974).

I had not read Raaheim's work till we met to discuss our mutual interests in the problems of transition of students from school to university.

Here again, although we might, initially, have looked to our respective well ingrained, habitual solutions — Raaheim's of problem solving and mine of helping people to understand emotional undercurrents of their learning behaviour — we both seem to strive to the same end: to help the disoriented students to learn how 'to feel at home' when they are 'all at sea'. So we have both found a common purpose of looking for ways towards more effective help in acquiring and in restoring competence of a large number of young academic aspirants threatened with attrition. And since common tasks generate understanding and utilize differences of approach as anvils for forging new solutions, the coincidence of our appreciating each other's views might not altogether be regarded as one of chance. Incidentally, a minor point of this coincidence of our interests was an identical impression we formed on experiencing and on reflecting upon the effectiveness of the common sense pedagogical approaches in the important areas of military training. I too was utterly astounded when I began to study education in 1947 (and in some respects remain amazed to this day) by the most primitive, medieval mass sermonising, and reliance on 'chalk and talk' as — apparently — major means of generating interest and of transmission of knowledge in schools and

universities. All this poverty of pedagogical effort stood out so clearly against the skilled and enterprising marriage of theory and practice, practice of practice and deepening of the theories applied in preparing the key naval personnel for solving the new and unexpected problems in action. The technology of visual and aural aids, the use of films, colour and models for simulation exercises and tactical games, provision for obtaining instant knowledge of results and careful grading of the learning dilemmas to prevent undue discouragement in training, were all there, constantly and effectively used, decades ago.

My impression of the unenterprising tuition procedures in higher education have been corroborated by my studies of factors contributing to the success and failure of university students when, after six years of survey, I remarked in one of my interim reports:

> 'There exists, to my mind — particularly in higher education — a great and ever increasing gap between the capital of accumulated psychological and pedagogical knowledge and the poverty of ideas on how to use it and feelings of consternation amongst teachers. The shelves of educational and psychological libraries overflow with information pertinent to a great many teaching and learning problems whilst many of the university teachers sigh for the miracle of another sorting technique to provide them with the more tractable students.
>
> It seems that in relation to what is already known about learning and teaching, our present efforts to educate people are still very primitive. If an analogy could be drawn between the state of education and the state of technology we are, as educators, still worrying how to make a fire whilst technology is beginning to explore our celestial neighbours. The pity of it is that as far as our existing educational know-how is concerned, I think we are somewhere in the Iron Age — sometimes I think we are already entering the Age of Steam! What are the myths and the prejudices that paralyse our own efforts to move a little faster with the times, and to help young people to become more self-reliant and to educate themselves for success in following advanced academic studies?' (Wankowski, 1970).

The chief mechanism underlying the discrepancy between the accumulated pedagogical and psychological know-how and its application in educational practice is, I suggest, this: there are two basic strands of educational thinking cleary discernible in discussions in any large assembly of academic educationalists — one is a passive stance, which can be summarized as:

> 'Let's observe and find out what happens in learning/teaching and, perhaps, sometime in the future we may be able to decide what to do to facilitate learning and teaching'.

The other one is an active stance:

> 'Let's get on with facilitating learning and teaching and see how it helps the pupil to get on with his learning and how it helps the teacher to get on with his teaching'.

Obviously, no blame or praise can be apportioned to any of these polarities evident in every educational debate. The truth, in my opinion, lies probably in the fact that a great majority of academic educationalists tend to be the kind of people who only too readily adopt a passive stance, so common amongst the recluse researchers who, pursuing minutiae, ardently hope that one day the fragments of their painstaking labours will enable some of their successors, even in another field, to use their atoms of discovery in building up a major scientific 'break-through'. And their hope is legitimate, and their wisdom and patience sometimes rewarded (if only after their death) by their scientific faith 'made flesh' in some new discovery.

The trouble is that neither children in schools, nor students in higher education, can appreciate such acts of scientific faith or wait for the fulfilment of such millenarian hopes. Their passage through the hoops of formal education is relatively swift and of short duration in comparison to the time span between major 'break-through' in any science. And however short the time span in the scale of scientific advance, it is, for the majority of young people, far too tedious an imaginary journey, which no amount of wishful thinking, or sermonising, will ever relieve. The state of suspended animation of any practical enterprise, so dear to large sections of academic communities, is anathema to every young generation and, if the ideology of the passive stance dominates the academes, the positive primary affects of excitement, enjoyment and surprise, which constitute the lifeline of any enterprise and learning, will never make a showing. And where primary positive affects are not apparent in formal teaching procedures, the negative ones of anger, fear, shame and contempt (Tomkins 1966) easily break through the thin skin of tacit compliance with the tediousness of bookish learning.

As for the myths and prejudices which restrain innovation in tuition and learning in the academe, I have described them in another paper (Wankowski, 1979) saying that the two most popular myths about success in academic studies are these: the first one is about the magic of 'academic ability' (thousands of dons still use this term and what it stands for, for them) coupled with the myth that university selections of candidates can recognize it. The proof that a student is capable of doing the course is that he was selected for it. Therefore, if the student fails it is his own fault (Reid, 1972). And the inference is that if a student 'has got it', he can do it, whilst the truth is that the student might think 'he has got it' in school, but 'it' may easily evanesce at university.

The second myth is that tutors at university will teach the student as effectively as in school, whilst the truth is that at university the student must learn to rely largely on teaching himself.

2. *Why some students succeed and some fail?*

When in 1964, following recommendations of the 1963 Robbins Report on Higher Education, the University of Birmingham took up the challenge to investigate problems of student wastage and failure and gave me the task of investigating educational aspects of this phenomenon, I began my exploration by testing and evaluating four major assumptions. These assumptions were derived from the general theory that human learning, spontaneous or formal, is a continuous process of regulating behaviour with reference to future events, anticipated in the light of past experience (Kelly, 1955).

These assumptions are:

(i) That the individual student's readiness to learn economically at university may depend, to a great extent, on his habitual disposition derived from past experience of learning and projected into the expectations and assumptions about learning in the future.

(ii) That continuity of success is more likely to be maintained if the learning and teaching conditions at university are as satisfying to the individual as were his educational experiences in the past.

(iii) That difficulties and failure may be more likely to occur when the conditions of learning and teaching appear, to the student, to be different, unfamiliar, bewildering and therefore contrary to his habitual expectations.

(iv) That notwithstanding these basic habitual acquisitions from the past, many students may succeed in adopting new and efficacious ways of dealing with the conditions of tuition at university if they have clearer professional and social goals, and if they are of a certain temperamental disposition which is less likely to interfere with the readjustment of their habits of work and attitudes.

Consequently, the objectives of my Random Sample enquiry concerned with the educational aspects were as follows: (a) to examine, as fully as possible, students' habits of learning and their attitude to the teaching situation at university and at the earlier levels of formal education and (b) to relate various 'factors' elicited by the analysis of information obtained from this enquiry to achievement in degrees. (1).

1. The full report, as well as a separately published comprehensive summary of the Random Sample Survey, should be consulted for details of methods of enquiry and analyses etc. Both are obtainable from the publishers, see reference list.

3. *Findings and operational prescriptions*

The data, resulting from two probes by structured interviews, administration of several questionnaires and a scrutiny of formal records of students' progress may appear inadequate to throw much light on the complex problems arising from the decisions of hundreds of uniquely endowed and uniquely formed young persons to enter into equally complex and unique tuition transactions at university. Added to this, the time when these young people embark upon their academic career is also a most difficult period of transition from an obvious, but seldom acknowledged, dependency on home and school, to a seemingly free and independent but actually often a lonely limbo of academic existence; a state of repressed apprehension, disillusionment and ineffectiveness, mingled with the unexpressed hopes and joys of exciting opportunities (Erikson, 1971; Kiell, 1964).

However sincere the intentions to go along the wellgrooved paths of research procedure — to select the issues, to see what affects what, to make observations, to control experiments, to derive inferences, to present cautious conclusions and to formulate further hypotheses — there can be little doubt that such intentions are far from being realised by this study. The difficulty, for the reader, may stem from the popular assumption that the learning activity of students can be regarded as amenable to a pin-point scrutiny whilst it is, essentially, a part of the entire dynamism of life. The whole process is continuous, historical and hierarchical, reflective as well as ongoing, constrained as well as goaded by the experiences of the past, drawn into a flight of hope as well as overshadowed by the restraining tyranny of the future commitments.

It is for these reasons that centrally conducted surveys of learning difficulties of students cannot possibly provide more than an outline of general inferences typical of group phenomena. Experience of individual tuition, clinical contact or any other person-to-person dealings soon shows that inferences drawn from group phenomena dissipate in the maze of other, more pertinent influences discerned in such transactions. Individuals are vastly different from the collection of their characteristics expressed as a group statistic. Consequently the central research findings in education might be more useful for inducing sensitivity towards problems of inter-personal transactions in tuition than in offering operational prescriptions. The pressure for such prescriptions is however so persistent that the researcher must yield to the call for concise statements of what might be done to increase students' efficiency in learning.

In order to offer such a list of prescriptions it is useful to recall the general inferences from the survey, which was designed as a combined project of research and counselling and the findings from both these activities are included in drawing up these inferences. Moreover, since students' difficulties at university seem to be linked with their pre-university experience in tuition it is more appropriate to deal with the prescriptions under two headings: one dealing with the pre-university level and the other with what should be done at the university (pages 29 and 31).

The findings of the survey suggest an overall impression that success at university may tend to be associated with:

(a) personal confidence and a feeling of competence in learning
(b) hopeful but realistic projection into the future occupational and social roles
(c) emotional stability
(d) temperamental tendency toward introversion
(e) relative independence from teachers
(f) a tacit acceptance of the curricular and work demands arising within the structure of tuition. (1)

Obversely, academic failure seems to be associated with:

(a) lack of personal confidence (or with an overcompensation for this disposition resulting in too much confidence)
(b) fearful and unrealistic projection into the future including occupational and social roles (or an overcompensation resulting in phantasy-bound planning, or in an overt rejection of planning ahead and in repudiating of achievement)
(c) emotional instability characterised by a tendency to over-act in social and in learning situations by either a complete social withdrawal, or a too eager desire for participation (or in sudden swings in either of these directions resulting in refusal to approach tutors when in difficulties, or again in an undue demand for support, guidance and attention)
(d) temperamental tendency towards extraversion which, at its extreme and in a learning context, makes for preference for speed rather

1. Educational tractability — a concept suggested by G.G. Stern — is perhaps the most neatly generalised label, if not in itself a prescription for academic success: 'In so far as it combines elements of both intellectuality and submissiveness, this dimension is of intrinsic interest to the educator. Reflecting interests in academic activities coupled with orderliness and conformity, this factor seems likely to be specifically associated with academic achievement. Persons high on this factor are not likely to be original or creative; they are however likely to accept directions readily and be educationally tractable' (Stern, 1970).

than accuracy, for unreliability and poor concentration in boring tasks, for preference in dealing with people rather than theories (1)

(e) dependence on teachers and other significant figures

(f) feelings of disenchantment and an overt rejection of the curricular and work demands arising from the structure of tuition (or with an over-compensation of this tendency resulting in a too rigid interpretation of such demands and an inability to adapt readily to changing milieux of academic activity).

When problems of academic compentence are examined from the angle of affective influences in learning (in contrast to the cognitive standpoint) the temperamental dispositions under points (c) and (d) subsume the remaining areas. It is easy to discern that emotional stability as well as the tendency towards introversion may contribute substantially to personal confidence and to a feeling of competence in academic studies. Emotional instability and a tendency to extraversion are likely to result in a loss of personal confidence as well as a loss of academic competence. The consequence of persistent anxiety is a phantasy-bound style of existence where concrete efforts or action are substituted by wishful thinking; an extraverted preference for inter-personal relationships and the need for constant challenge, stimulation and 'feedback' may induce great dissatisfaction with boring theoretical and stereotyped routines of tuition at any level of education.

Thus, the most general rule for operational prescriptions for schools and for universities should, on this analysis, be aimed, in the first place, at a considerable reduction of learning anxiety and of its most obvious overcompensatory tendencies.

4. Pedagogical gap in transition from school to university

Academic over-compliance, rigidity in learning styles and undue dependence on routines and teachers are often inadvertently induced at the pre-university levels of tuition (particularly in the sixth form) and no less inadvertently denied by the more detached modes of tuition at university.

(i) What happens in the 'sixth form'(2)

It seems that, as things are, a great deal of learning anxiety is very skilfully accommodated in the sixth forms, if indeed not unduly masked to the point

1. As succinctly summarised by Furneaux: 'The extreme extravert prefers speed to accuracy, tends to be unreliable and is poor at tasks which demand prolonged vigilance under boring conditions. On the other hand he is very flexible. His primary orientations are social and he greatly prefers dealing with people than in working with things. It is the inter-personal element in any situation which holds his attention' (Furneaux, 1962).

2. Special classes in secondary schools, or special colleges in Britain preparing selected pupils for the advanced level matriculation examinations.

of inducing an illusion that an individual is a competent and an autonomous learner. This state of affairs is often brought about by the apparent ease of survival in the front ranks of academic attainment at school. It is but little realised by the teachers and by the educators in general, and certainly very seldom by the student himself, that his survival is due largely to the protective structure of tuition. Here the teaching and learning procedures had their clear objectives — the public examination requirements. The well planned, systematically presented and frequently tested set of factual knowledge was copiously and almost instantaneously reinforced by a ready feedback from the teaching situation. The proximity of teaching staff and emotional support derived from keen supervision and from parental influence at home tended to accommodate anxiety, oversensitivity, self-doubt and depressive tendencies, creating a firmly established illusion of competence and autonomy.

The same conditions of inter-personal relationships in tuition, the frequent and insistent demands for work and home exercises, build up the confidence of pupils with strong extraverted tendencies (Malleson, 1972). These scholars, whilst not anxiety ridden, are essentially 'reality bound' and the reality of the tuition pressures helps them to succeed in a structured situation of academic work in the sixth form.

(ii) What happens at university

It is only when such scholars meet the largely impersonal routines of teaching at university that many of them lose their nerve, their confidence and their ability to persevere. Here the objectives of learning must be established by the students themselves. The teaching material, vastly increased and in far more numerous subjects of study, must be organized into some order of priority for exploration and learning. The exercises and working papers, in some areas of study, are scarce or their execution largely unsupervised. The palpable consequences of learning, the 'feedback' from the teaching situation (Peel, 1956), occur at rare intervals.

The student who was trained to depend on others has to learn how to learn by himself. No wonder his plight seems great, his dissatisfactions manifold; his susceptibility to failure has been exacerbated out of all proportion by the very system of tuition which was designed to make him an independent learner. Clear teaching objectives, proximity of support from teachers and availability of 'feedback' from tuition are the most distinct pedagogical features of the sixth form. The same features are very much less distinct at university.

This is only a very generalized impression and must not be taken as implying a complete absence of supportive aspects of tuition which, no doubt, exist in many areas of university studies. But, if general prescriptive

recommendations are required, they must match the equally generalized picture of reality rather than the particular and the sporadic features of university tuition.

(iii) What could be done at both levels of tuition

Perhaps the most readily implemented solutions of the problems of transition from school to university would be for the schools to prepare their pupils for the impact of the most unsatisfying features of university tuition, and for the universities to continue, at least initially, to provide supportive tuition to which the students were so habituated at school. Drastic changes in tuition methods may tend to induce greater anxiety in the less emotionally stable individuals. They are the most vulnerable section of the student population and their numbers are considerable.

Thus, in order to help students to adapt more easily to the tuition patterns prevailing at university they should be given some foretaste of these methods at the 'sixth form' level. Obviously, in the present system of educating the 'sixth formers' mainly for excellence in public examinations the measure advocated below would form only a marginal aspect of the preparation for university entrance. Some effort to acquaint the prospective students with what may lie ahead should, nevertheless, be made.

This process of preparation should not be made by precepts or by telling the 'sixth formers' what they may encounter in university tuition: such instructions will not help much. The preparation should be active and exercised over a long period of time if it is to be effectively integrated by the pupils. Talks and freshers' conferences are not likely to have much effect as means of training for the hardship ahead.

5. Preparation at the sixth form level: an interim measure

It would, so it seems, be necessary for a time (1) to introduce a part-course in every G. C. E. 'A' level(2) subject, run on the lines of tuition prevailing at university. The underlying strategy of such a course would be to help the sixth formers to learn how to learn, largely by themselves, to organize their learning on the basis of mainly expository tuition.

A 'pre-university training course' should involve experience in being instructed by means of large-audience lectures (mass-lectures), and in being

1. Until universities modify their admission procedure which shape the pre-university teaching (Reid, 1971); also until the methods of university tuition are suitably adjusted to meet the needs of transition.

2. General Certificate of Education, Advanced level courses leading to matriculation examinations in Britain.

taught by teachers who are keen on research and deep exploration of their subjects and who would be less involved in the day-to-day progress of their pupils than other sixth form teachers. The 'feedback' from tuition should be considerably diminished: work assignments less frequently assessed, marked or commented upon.

Generally, in areas of the curriculum assigned to such a 'pre-university training course', the sixth formers should be given less opportunity of knowing how they fare in their learning whilst, at the same time, they should be trained how to become more skilled in self assessment of their own progress. Large numbers of topics and sub-divisions of subjects should be introduced in order to diffuse effort and attention in learning, revising, etc. The volume of information should be drastically increased and the contents aimed far beyond the requirements of external examinations.

Some aspects of the 'Advanced' level subjects should be taught by teachers from other schools. This would reduce the opportunity of post-lesson contact and provide experience of greater distance from the key figures in tuition. The necessity for pupils to read, explore and organize their own search for information from books and publications should be stressed. The objectives of teaching various subjects (now clearly outlined by the 'Advanced' level syllabus) should not be made so readily apparent to the sixth form pupils. Pupils themselves should be encouraged to develop their own points of integrating and inter-relating their information with reference to some objectives which may be academic or practical.

(i) Skeleton strategy for training how to contain academic anxiety:

A skeleton strategy of such a 'course of preparation for university studies' at the sixth form could be summarized as follows:

(a) mass lectures as a means of disseminating information
(b) less frequent contact with teachers who actually give such lectures
(c) Limited 'feedback' from the teaching situation and training in self-assessment as pupils learn to organize their studies
(d) encouraging pupils to construct their own objectives in learning and to integrate information, gained from lectures or reading, round some points of interest (objectives may be academic or practical)
(e) occasional guidance by means of tutorials with teachers not involved in mass-lecturing
(f) assessment by internal examinations and by extended essays and dissertations.

6. Prescriptions to moderate 'academic anxiety' at university

Whilst in the 'sixth form' pupils should be exercised in the less structured and less 'teacher-dependent' routines, so as to give them a foretaste of tuition at university; once here they should be taught, at least to begin with, in a more 'teacher-dependent' manner.

Such methods should include:

(a) a reduction in the size of audiences in lectures and, generally, less reliance on mass-lectures as a means of disseminating information

(b) more frequent contact with tutors who actually teach the subject in lectures

(c) far more frequent correction and appraisal of the submitted work and exercises

(d) more clearly formulated objectives of tuition in each subject as well as clearer objectification of the entire course of studies

(e) frequent attempts to point out the inter-subject relationships in the given course of studies

(f) more frequent attempts to discuss with students the career implications related to the course of study (encouragement to use the facilities of the University Careers Service)

(g) more encouragement given to students to discuss their specific learning difficulties as soon as they arise, with tutors, or with other members of staff who can give time to such discussions (personal tutors, educational and psychological counsellors)

(h) a greater variety of approaches to teaching even within the same subject of study

(i) varied methods of assessment and examination which should be clearly explained and made well-known to students; some options as to the methods of examining should be given to students

(j) attempts to reduce examination stress by:

1. holding examination sessions, supervised by departmental teachers, in familiar surroundings within departmental premises
2. varying the time of examinations (holding examination sittings in different departments at different times of the academic year) in order to minimise the seasonal build up of mass apprehension (collective-panic) amongst the anxiety-prone students
3. allowing students to re-sit examinations as many times as may be administratively possible

4. allowing students to re-sit only those papers in which they failed and not, as is a practice in some departments, to re-sit whole groups of papers irrespective of successful work in some of them
5. preparing parallel examination papers in order to have reserves for use by students who miss some specific examination session
6. spacing examination sessions to allow for a reasonable break between papers (if examinations became the responsibility of each department and were organized and held in departmental premises the difficulties of the central examination timetabling could be avoided)
7. use of tape-recorder examination techniques for students whose reasoning under stress may be less subject to 'emotional blocking' when they *talk about solutions* to problems than when they have to *write about them;* facilities for typing examination papers should be provided.

7. Prescriptions for tuition and research

(i) Tuition

More generally, if learning efficiency is regarded as an outcome of successful performance during learning tasks, the feeling of success is inherent in the teaching situation, and it is at this level that its restoration ought to be attempted when students enter university.

Thus the teaching transactions and consequently teaching methods should be such as to match — at least initially and until the student is able to stand on his own feet — the deeply ingrained habits of previous learning. It is a commonplace for a well trained teacher that each new teaching endeavour must be preceded by an evaluation of what students already know in the given field of study. It is, unfortunately, seldom recognized that this evaluation must include the manner and the nature of the students' past learning styles. Some individuals can proceed to master new things and to develop new styles of learning eagerly and without apprehension. Many others will cling to the old, well-grooved, paths: 'Familiar therefore safe' is the prevailing refrain of their lives and compulsive conservation of their styles of learning a more natural tendency than exploration. Although university education would fail its purpose if it did not foster an independence of judgement as well as independence in organizing students' own work, the process of academic emancipation should be gradual if it is not to be destructive.

Tuition should therefore be tailored, at least to some extent, to the needs of individual students being, for some, more demanding, more extending their natural curiosity and far more encouraging to proceed ahead of the main stream of studies, and for others, a little more circumscribed and gently graded to their own, less ambitious, flights of academic exploration. Tuition should also be meaningful in terms of students' deeper academic interests and their professional aspirations.

The problem of reducing student wastage, through action at the level of teaching, is very much in the forefront of the new thinking about university tuition. The need for training university teachers is recognized and, sooner or later, more energetic steps must be taken to encourage all prospective teachers to take up some formal studies in this area of academic activity.

(ii) Research at tuition level

Research and studies in tuition methods should be more frequently conducted at department and course levels. The facilities of any study assistance service, if available, could be extended and used by tutors engaged in such projects.

Perhaps one of the most effective means of encouraging research at tuition level would be to introduce higher degree studies of educational problems generally and of tuition methods in particular, in specific academic disciplines. Such on-going, departmental research, conducted by one or two postgraduate students could become a subject of lively discussion in departmental common rooms, providing fertile ground for exchanges of views and critical appraisal of tuition procedures. It would, at the same time, encourage some students in every department to think seriously about professional training should they contemplate an academic career.

CHAPTER III

Kjell Raaheim

ON THE PEDAGOGICAL SKILLS OF UNIVERSITY TEACHERS

It is likely that at number of people would react to this heading by suggesting that it is rather a question of the *lack of skill* where the university teachers' pedagogical status is concerned. Contrary to the case of teachers within almost any other field, university lecturers will as a rule start their career without any training for teaching at all.

It has been argued that the reason for this state of affairs is that it is taken for granted that a person who has the necessary qualifications for doing research — to fill a post at the university — will automatically be suited for lecturing. I am not willing to accept this as the whole story, at least not on the assumption that university teaching is equivalent to other forms of teaching activities. There is, however, the possibility that many would look upon the learning situation at university as something very different from what is found elsewhere in education.

We shall have a chance of returning to this matter in a later chapter. We have for a very long time heard stories with some sad consequences due to the insufficient educational skills of university teachers. They have given rise to serious discussions — and anecdotes. More recently we have had suggestions, particularly from student quarters, that pedagogical qualifications be given consideration when making new appointments. We also know that educationalists have offered courses for teachers at university level, without much success. As far as I can judge, the general picture is very much the same in a number of different countries. The courses are attended by very few and often only by those who least of all need to alter their educational practice!

We are often told that the concern about the lack of educational qualifications involves far more important issues than the practical skills of using audio-visual aids, or of talking clearly etc. This is *not* what courses should be all about. Rather it seems to be a question of learning to be aware of the individual and of group interactions with the lecturer and amongst

students themselves. Maybe this is the reason why so many academic theoreticians hesitate to enter a course?

Let me try to ease the situation by some reflections on where the educational shoe *starts* to pinch:

My own first confrontation with teaching procedures at university took place shortly after my discharge from the army, where I had been exposed to courses for instructors in various disciplines. The relief I felt by being able, at the university, to choose subjects *myself,* was perhaps the main reason why I did not come to look upon the change in the learning situation as a problematic one. On the other hand, I could not fail to discover that in a number of ways the lectures at university were drastically different from what had been regarded in the army as basic principles of instruction.

Among other things this had to do with the attention of the audience. I had been given detailed information by the course leaders in the army of how the attentiveness would vary in a group during the 45 minutes of a lecture. And, moreover, it had been suggested what could be done to counteract the influence of tiredness or boredom among the listeners, or those watching some demonstration. Now, among the lecturers at university, I noticed quite a few who never seemed to think of even *catching* the attention of their students in the first place, not to mention any action to heighten it at critical points. I must admit that, over the years of lecturing, I have myself sometimes let my own interest in a topic influence both my enthusiasm and the time spent talking about it. I have probably forgotten most of the relatively simple ways of securing the attention of a listener who was not attentive from the beginning. And I cannot, as an excuse, blame the fact that I was never really told what to do.

My disappointment as a new student was not, however, confined to the lack of attention in some lectures. In fact this was of minor concern to me personally, as I discovered that it was perfectly all right to restrict my attendance to those lectures I particularly wanted to follow. The annoying thing was that I sometimes could not get hold of the main points to which the lecturer was addressing himself. If his talk was accompanied by some demonstration of instruments or products, I would on occasions be completely lost. The lecturer would perhaps *hide* the objects in his hand, or stand between me and the things he wanted to demonstrate.

The interest the army takes in the question of whether or not the individual recruit has got a clear enough picture of the details of a weapon, say, can not perhaps be compared with a university teacher's concern whether his listeners are catching every point. Still, much is likely to be gained if one considers some very simple rules such as always to hold small objects up towards the light, to turn them around, or to keep them at a distance from one's own

body. Short remarks such as for instance 'Look here', or 'Listen to this', could be offered, even if, as a general rule the student is there, looking and/or listening. It may not be so important that everyone in the room learns how to operate some apparatus shown, but is it not, after all, wasteful to spend time on something very few have an opportunity to handle?

As already mentioned, educationalists argue that university teachers need not learn how to 'write clearly on the blackboard'. Contrary to this, I would maintain that this is exactly what we need to learn, *first*. It is conceivable that we shall have to start at an even more elementary level. I am thinking of something which the military course organisers did not have be worried about, namely *the attendance* at the lecture.

There may be a number of different reasons why, on a number of occasions, we find the student attendance to be following a rather fast declining curve as the term proceeds. But whatever reason is found to be most important, the fact remains that not even the most brilliant educationalist would have any impact on those *not* present in the lecture room. Admittedly, the importance of the problem of attendance varies with the areas of study and with institutions. But there seems to be a widespread belief that inevitably university teaching must be accompanied by this problem. Only in cases where the students' attendance is somehow of a direct importance for their 'pass' or 'fail' on a certain course does the problem seem to be taken seriously by teachers. Perhaps this is a statement that would need to be modified. In any case we shall come back to the question a little later.

What are teachers and students like?

The question sounds probably more naive than intended. We have found that there is no short and precise answer to the question of what *groups of people* tend to look like when their members are observed individually. In the history of psychology, attempts at describing individuals on the basis of group assessments have ended in failure where the attempt to operate with just a few variables is concerned. The uniqueness of the individual generally makes the use of labels highly inappropriate, and in most cases these attempts have been abandoned. In most cases, but not in all. Within educational institutions such labelling still exists. Teachers often see their students as belonging to a small number of groups, whereas the students in many cases place their teachers into one, single category. And there is reason to believe that this holds true also at university level. The way students and lecturers perceive one another is characterized by a simplification not easily found elsewhere between adults.

At the University of Lancaster, Noel Entwistle (now in Edinburgh) has conducted some extensive investigations on different questions of university

pedagogics. Data have been collected by way of interviews and questionnaires from more than 2500 students from 21 universities and other institutions of higher education. More than 600 lecturers have also been approached.

The investigations have aimed at different objectives. One has been to describe different learning strategies among students, and, if possible, to gain an insight into the question of study progress and personality. One has asked the question of what are the different goals of students, both with regard to future work and to personality development and well-being. Of special interest in our present context is the student's statements of goals, which are seen to vary quite a lot. Students *are* very different, both as far as personality structure is concerned, and when it comes to views on what might be gained from studies at university. Whilst this is a finding that would scarcely surprise the reader, it is worth noticing that the teachers' conception of the students is almost without variation. Most teachers seem to agree that there *is* a group of 'good students'. This group is rather small, as is another group, of 'poor students'. Whereas the 'good students' prove themselves early as future academics, the 'poor students' are seen as lazy and of low intelligence. The rest — the large majority of students — are seen by the teachers as belonging to one big group, the members of which do not seem to possess any particular noteworthy, positive feature. Only to a very limited degree are the teachers aware of the numerous, differing goals and interests expressed by the students themselves.

If we move from Great Britain to Norway, we would most probably find that the same would hold true there. 'Teachers' and 'students' are normally seen as constituting very homogeneous groups of people. One might well be aware of deviations from the general picture, but these would probably be taken to constitute the exception that 'proves the rule'.

Entwistle's investigations also seem to confirm our assumption of what would be typical students' attitudes towards teachers. Most students seem to regard their teachers as members of a distinct group, where the common interest is to do research, and where an interest in teaching is almost absent. Students from different institutions, and of different subjects, all seemed to agree that most teachers were seemingly without any concrete goals as far as their lecturing was concerned.

The students were, however, able to point to *some* exceptions. The 'good teacher', although he or she is a rare thing, is a person with two distinctive characteristics: *enthusiasm* (for what he or she is teaching) and *concern* (for the students). Above all, the good university teacher is interested in the students, *as people*. This type of teacher tries to convey to the students an interest in the subject, by way of careful planning, and asking the question of

how the teaching ought to be administered, as well as what its content should be at different times.

The 'poor teachers' — and according to the students those are in the majority at university — are all characterized by a *lack of interest* in students ('they do not care about students'). Their teaching seems to be aimed solely at detecting future researchers, and thus runs the risk of being of little relevance to most students. The teachers also seem to ignore that there is a lack of communication between them and the students.

In a report, Brennan & Percy (1976) deal with the results of the British investigation. They point to the fact that students from different institutions are almost unanimous in their criticism of their teachers, using nearly identical formulations. But although the teachers are thought of as being concerned only with what is relevant to examinations and assessment, many students are of the opinion that it is *the system* that ought to be blamed. Both students and teachers suffer from the system, the teachers being more responsible for its structure, though.

Brennan & Percy make another interesting point. If we look at how *teachers* feel that university teaching should present itself, we find a high degree of consensus between them and the students. Both parties argue that one must abstain from a one-sided stressing of the syllabus and mere knowledge acquisition. The teachers claim to be planning their lectures with the aim of stimulating the students' independence, flexibility and critical thinking. The way *they* describe 'a poor teacher' more or less coincides with the students' description. Judging from the interviews with the teachers, such a person is, however, a rare exception!

We might ask the question of what is the chief explanation for the negative attitudes, and the stereotyped descriptions students and teachers present of one another. Brennan & Percy point to the inconsistency between the teachers' *statements* of what must be regarded as sensible pedagogical behaviour, and their actual, daily pedagogical *practice*, and they emphasise that while teachers *say* they are not in favour of rote learning or of strict dependence on the curriculum and on mechanical routines, this is what they in their daily work stress the most. Much of the blame for this situation can perhaps be placed on the *working conditions*, under which the teachers have to operate: A lack of time, a shortage of resources, competition, and numerous committee assignments. These are all factors that often ruin both the pleasure of one's work and the best of plans for proper teaching.

This is all very well. But the fact remains that the relationship between teacher and students usually looks somewhat shaky from the start. Suspicion, or a lack of confidence, might be the result of a clash of basic interests that may differ in various ways, — a clash which both parties may have

experienced from time to time throughout their years at school. At university the teachers and the students *start* with a well established 'knowledge' of being on different sides.

Admittedly, this is to paint with rather broad strokes. Still, a mutual confidence does not seem to establish itself between teachers and students until the latter reach the postgraduate level. Now the two parties seem more alike, as far as insight into a topic of study is concerned, and it then seems to follow that a necessary basis for respect, and co-operation may be found. A better knowledge of 'the other part' might do away with the fear that seems to exist, initially.

At Solihull Sixth Form College in England, where the students are given a very good introduction on how to study in a university setting, a training in *co-operation* is central. Both teachers and students of this college will tell you that it takes time to establish a co-operative relationship. When the students arrive at the Sixth Form, at about the age of 15-16, they have had years of experience with teachers as their counterpart. And they see this counterpart as having different interests, attitudes, and points of view, in nearly all respects. Only after a term at such an institution as Solihull, where the teaching follows a 'university pattern' which is very seldom found in such excellent forms at university itself, is the uncertainty and lack of confidence reduced to a level that will enable the two parts to work in a fruitful, co-operative manner.

If one watches the students working — doing physics in the laboratory, or literature and history in the lecture room, or in tutorials — one is reminded of the *post-graduate* students' way of acting. I have been struck by this myself on unannounced visits to the various rooms. What I did see gave me grounds to reflect on the information just mentioned. And so I believe that it *is* really possible to establish a condition of mature ways of working, even at pre-university level.

At Solihull an effort is made to diminish the problems of transition from school to university. As part of the program, the college tries to prepare the students for a teaching situation at university which might otherwise come as a shock, when a young students has to organise his studies on his own. Paradoxically as it may sound, the students from Solihull are sometimes *too well* prepared for university life. When later they are asked to report back on the benefits of their stay at Solihull, they often say how frustrating it has been to find out that the university was *not* 'the university prepared for', as sometimes it meant a step back into a less mature way of studying.

Are the goals of students and teachers after all more or less the same?

As already mentioned, Brennan & Percy reported that a good deal of agreement existed between the *descriptions* of teaching goals at university. Teachers and students seemed to agree on how 'the good teacher' organises his or her teaching, and there is also agreement on the attitudes and intentions ascribed to such a person. When the daily pedagogical situation looks different, the reason for this might be that teachers find difficulties in following their ideals.

When they examine the data from their British investigations more carefully Brennan & Percy have some doubt about the possibility of shared goals. It appears that although both teachers and students stress the importance of 'criticism', 'enthusiasm', and 'tolerance', they seem to put different meanings to the words. Students are, for instance, seen to complain that when the teachers ask them 'to be critical', this implies only the negative aspects of the word. They are encouraged to doubt the correctness of information, to challenge, and to tear up arguments. The students want to replace lost illusions by being creative, and by constructing new and better solutions to different problems. Also they object to the idea that 'criticism' is only to be held within rather strict professional limits.

That the students have goals other than entering an academic career is something that is often overlooked by the university teacher. The *variety* of goals is also such as would render a highly generalized statement of 'what students want' into a rather meaningless remark. Brennan & Percy find that there are signs that individually based goals *are* being recognised, for instance by allowing students to partly decide their own curriculum. However, the individual components seem to be very limited in scope.

It would, however, be wrong to give the impression that the British investigations leave us with a picture of only dissatisfied students. There are numerous statements to the effect that the time spent at university has been valuable. The *criticism* has been directed mainly towards the professional activities or activities related to the curriculum. On the whole, the teachers' demand for professional effort is considered too great, and seen as directed towards a too restricted acquisition of knowledge. In the students' opinion the teaching situation at university and that of pre-university schools may turn out be quite similar, despite the fact that the university is generally looked upon as a unique centre for intellectual growth and the seeking of *Truth*.

Enthusiasm and consideration — how far would it take us?

According to the Lancaster investigations, a 'good teacher' may be characterized by such keywords as 'enthusiasm' and 'concern'. These are traits of a very general nature, but even so, we might do well in taking the students' opinion seriously, especially since there is so much agreement between the statements of students from different faculties and institutions.

The presentations of educational procedures are often very technical, involving complicated models of methodological structures and educational technology. Psychologists have often contributed to these pictures by evolving comprehensive theories of learning. In the Lancaster study we are left with some non-technical terms from everyday language, and I would like to take those terms as the points of departure for some comments relevant to the present teaching situation in Norwegian universities.

Recently we have seen a growing tendency to let graded marks at the end of a course be replaced by a mere 'pass' or 'fail'. However, this arrangement has the drawback that when the students are no longer assessed by some examination test at the end of the course, the teacher is forced to rely exclusively on what he has seen of the student during the weeks and months gone by. He will be faced with the problem of having to assess students who have *not* had a regular attendance. If taking part in exercises and laboratory demonstrations is the student's chief way of showing his mastery of the subject matter, how much irregular attendance can be tolerated?

Admittedly these problems have been effectively dealt with for generations within some fields of study, as for instance in science courses based on laboratory work. What is new today in some countries is that forms of assessment, other than written essays, find their way into new fields, such as, for instance, psychology or social science. And then if the *choice* of assessment is left to students, how can a teacher be expected to watch a student's steady progress, if the student is not there to be watched? There seems to be no easy way out, since one naturally hesitates in strictly controlling attendance, when today more of the responsibility for the students' progress is left to the students themselves!

I have myself been confronted with this dilemma on a number of occasions, and have sometimes raised the question in a discussion with the students before starting a course. But what to me seems to be a problem is not automatically conceived in a similar way by the students, as will be clear from the following remark:

> 'There is no problem. If your contribution as a teacher seems meaningful to us, we shall be attending the course regularly. It is as straightforward as that'.

On the occasion I tried to raise some objections, suggesting that probably 'the flesh is weaker than one tends to think', especially on a cold and snowy morning in the winter term. Does one not need, sometimes, an additional reason to get up in time?

Since the students were quite unwilling to see my point, I decided to keep my 'knowing better' to myself and silently accept the challenge. The results seem to show that the students were right. When, because of the challenge to make a 'meaningful contribution' each time in my lectures, I put some extra effort into my work as a teacher, the students responded by a 100% attendance. Admittedly the course was a rather short one, so the difficulty of keeping to the terms of the mutual 'contract' was not too great for either party.

In cases like this, teaching demands a great deal of consideration. Not just having to be correct or precise in what is presented, but also having to consider the audience, and to judge how to present the message in a way that it may be clearly understood.

A one-sided demand on the teacher to make the learning situation a 'meaningful' one is, however, somewhat unreasonable. The students should also be willing — and perfectly able — to make a contribution towards this aim. Speaking about the school system in Norway one may doubt that pre-university institutions have given the students any experience in this direction. Indeed, the lack of experience with personal contributions through some agreement with the teachers is so pronounced that university students who, after some pressure from a lecturer, have promised to prepare a report for a seminar become 'ill', or simply fail to show up on the appointed day. Lecturers will sometimes describe this attempt to let the students share the responsibility for the success of a seminar as a sure way of *reducing* the number of participants!

A contribution to the tuition situation may, however, be given in more than one way. It ought to be possible to have regular discussions about the learning situation, and thus make changes while still under way. Teachers should encourage the students to let them know if something is too complicated or seems too elementary in relation to the previous learning.

If students are asked to state *the reason* for their absence — with an expressed aim of discriminating between sickness and a wish to spend the time differently — two things may be achieved. In the first place there is the chance of revising a program, to make a more perfect match with the students' interests. Secondly, one might in this way come to terms with the problem of assessment in cases where a regular examination is not to be held. Personally I have not yet met a student who was unwilling to give a reason for a half-hearted course attendance. And, in a later chapter, I will discuss the

possibility of using such procedures in systematically trying to improve the learning situation at university (see Chapter VII, pp. 84-88).

So far I have only been commenting on the question of the lecturer's *concern* for his students. The students did, however, also mention *enthusiasm* as an important characteristic as far as a 'good teacher' is concerned.

I have deliberately chosen to let my comments on 'enthusiasm' come second. *Without* some concern for the students, that may have resulted in a reasonable course attendance, it might be rather difficult to show any enthusiasm when lecturing. Teachers will sometimes tell you how depressed and uninspired they feel when, towards the end of the term, the number of attending students has fallen to a mere third of the original number. If they also tell you that the reason for the falling off in attendance is, in part, that the students are preparing for some other examination, they will finish their series of lectures without losing face. It is, however, much easier to find ways of being enthusiastic when the lecture theatre is full of people which makes you feel you have achieved your pedagogical objective, if only for once.

It may seem that enthusiasm comes as a natural *outcome* of a good reception of one's teaching efforts. But might not enthusiasm on the part of a lecturer be a necessary *condition for* a successful outcome of his teaching efforts? The students will often criticise the teachers for lacking enthusiasm and for presenting dull lectures, when they have no specific complaint about the professional standard of the lecture.

The question of how far enthusiasm *in itself* would really take us is a very difficult one indeed. One may argue that a teacher who is unaware of the fact that his favourite topic might be of less interest to other people, will soon lose his audience. This might perhaps fail to disturb him, as long as *someone* was there, to listen. He might also find comfort in the idea that it is only natural that very few would be gifted enough to fully appreciate his subject or wit. On the other hand, one may consider the possibility that a lecturer who is genuinely interested in his topic, and in letting others have a chance of sharing it with him, might often succeed in a full house throughout the season, even if, to begin with, a number of potential listeners would tend to think that the topic in question was unworthy of their concern.

Since I have no ambition in trying to formulate a 'final list' of characteristics of the good or successful university teacher, I shall make no effort to carry the analysis of enthusiasm and concern any further. Rather I prefer to stress the importance of a *combination* of the two, for successful co-operation between teachers and students.

It may seem that the teacher is always the one who carries full responsibility for the creation of a favourable learning situation, but it must be kept in mind

that unless universities and other institutions of higher education provide sound basic conditions for co-operation between students and teachers there is little hope of a successful end-result.

Co-operation as the fulfilment of mutual contracts

Continuing the discussion of co-operation between the university teacher and his students, I want to focus on some minor details that may be important on closer scrutiny. I shall take, as the point of departure, an informal discussion I once had with a colleague from a university abroad, concerning the different educational problems met within the day to day life at university. Our talk was concerned with the question of how to ensure that students meet the time limits set for different types of written work and hand in their essays at a certain date, agreed upon on 'friendly terms'. My colleague told me that in his department the students are requested to prepare three comprehensive essays during one full year, as part of the requirements for a course in psychology. The problem much debated in the department was how to persuade the students to hand in their work to the lecturer without forever having to ask for more time, or simply failing to show up on the day agreed.

My colleague's reply indicated where the answer might be found. He told me that he has himself never had any problems of this kind in his own group(s) of students, but then he has perhaps more experience and more time than most of his colleagues. In any case he is very careful in having the essay topics thoroughly examined in advance, and in arranging for some definite guidance to the students about the time they are expected to work on their essays. Last, but not least, he always *returns* the essays, with comments and a chance of discussing them, at a pre-set date, within about a week after their being handed in.

What we have here is a contract that involves specific contributions on the part of the teacher. It may seem obvious that it is advisable to let the 'feedback' come after such a short time. But it is also very important that the teacher himself keeps to the letter of the contract by returning the essays at the time agreed.

It is, of course, very difficult to tell whether or not the reason for my colleague's success with his students' essays is the one suggested. But it is worth noticing, I think, that the 'carelessness' of his fellow lecturers could be very easily detected from a look at their pigeon holes in the hall, where the essays of the students who *had* kept to the time limit were still to be found, at the time when he had already returned his with the necessary 'feedback' comments to the students.

Many of us will recognise ourselves in this situation, very busily trying to let 'first things come first'. To mark essays is perhaps *not* what we most like to do, and it is so easy to find a number of excuses for having to postpone it. Still, we might do well to give this task a higher priority, since it means so much to the students that we keep our side of the contract, and since the job has to be done sooner or later in any case.

More important than having everything done at a pre-set time is having a clear enough contract set up in an atmosphere of mutual acceptance. An 'agreement' on time, which is reached by the lecturer writing a certain date on the blackboard, will probably be very difficult to keep. If this is an example of how *not* to do it, it is also wrong to believe that any difficulty has been dealt with once an agreement has been reached after some discussion, in a seminar. A strict time schedule is indeed very difficult to meet in academic work, especially when the students have limited experience with the work set and few sources of help and guidance as they go along.

It may seem that we now attach too much importance to a problem of a rather trivial nature. It might be objected that the most natural solution to the problem would be to state simply that time limits and rules are there to be kept, if chaos is to be avoided.

My answer would be that we are here touching upon problems of great importance to both lecturers and students in many departments. It is not just a problem concerned with shorter essays. In some areas of academic studies major theses — as for instance in Scandinavian universities — would often tend to engage a student in work *for more than a year*, after the time when, according to the official time table, he ought to have graduated!

We have argued that, at least as far as Norway is concerned, pre-university schools seldom prepare the students for individually based studies, where the student has to decide for himself, not only on which topic to concentrate, but also what line of approach to take and at what speed to proceed. As mature individuals university students are expected to do many things that nobody *orders* them to do. Still, even when students' are seen as 'grown ups', it is as well to remember that even adults also fail to keep to some prescribed modes of behaviour. We postpone things, tend to forget what is unpleasant, time-consuming or boring and sometimes set out on ventures that other people would prefer us to leave alone.

This may as a rule all take place in situations where we don't have to share with others the responsibility for our actions. But the situation becomes very different where there is a contract involving other people. The fulfilling of contracts and acting according to mutual agreements is usually secured by numerous laws and regulations in society.

The tuition at university must have its point of departure in a co-operative situation, where lecturers and students meet as equals, as far as the responsibility for the performance of certain tasks — within certain time limits — is concerned. Maybe it is the teacher's extra responsibility to have the students looked upon as mature partners. This may imply that the teacher cannot allow himself to delay the marking of essays, say, to a day when he feels like it; but it may also imply that his reactions ought to be different from a mere raising of the eyebrows, if a student does not show up at a seminar, where he had promised to be one of the main participants in the discussion. With an equality between the partners, the lecturer's presence should not be more obvious than that of the students.

Must we learn how to teach at university?

To raise this question is to step into the lion's cave. Two issues may be discerned here: What is needed by way of educational training? And: How should one go about it? I have been visiting a number of universities in various countries, in order to study the educational programs offered for new members of staff. I have found that there is a lot of experimentation and a great variety of courses. An interest in these questions is most readily seen in the specially engaged educational experts and in students who suffer most from the unsolved problems of tuition.

Around Europe the picture is remarkably similar, particularly when it comes to the question of how to evoke interest in taking a course amongst those who are judged as lacking in pedagogical skills. There are as a rule optional courses for newly appointed lecturers, as well as for senior members of staff. The courses are given sometimes by educationalists within the institution, and sometimes by experts from an institution elsewhere. In both cases it is found that among the lecturers who choose to attend a course the majority already possess some formal training and also show interest in the day to day problems of education. The teachers for whom the course is really set up are found to be in the minority amongst the course participants.

It has been repeatedly argued that if more prestige were given to educational qualifications, university lecturers would be more willing to make more effort to increase their proficiency in teaching. The view has also been advocated that if researchers were really shown the intriguing problems of education, they would not hesitate to become involved in research and problem solving in this area also!

Personally I hesitate a little in following these lines of reasoning. Challenges are plentiful already, and most of one's energy is likely to go into the solving

of problems within one's own area of research. Also I feel that there is a need to start by discussing, a little bit more seriously, what would be the main objectives in raising the pedagogical standards amongst researchers. Perhaps it can be agreed that the university teacher has before him not only the task of presenting to the students a reasonable introduction to the knowledge and skills within the various fields but, he must also guide the students in mastering certain methods and techniques for *developing them further*. The research process as such is seldom set up as a separate topic for teaching, although within most subjects there may be courses in research methodology. It seems obvious that the academic staff at university have a definte experience with a variety of procedures for research, which ought also to be handed over to new generations of students at the undergraduate stage.

Having said this, it seems that researchers, when lecturing, behave as if *all* of their students will become future workers in the academic field. They tend to forget that the great majority of students of today will take up jobs of all kinds *outside* university. We are, perhaps, left with the dilemma of deciding to what extent we shall behave as school teachers, and to what extent we are merely to follow the routines of a research worker, in an institution that produces new insights in some fields of study.

Professional educationalists and other external 'experts' cannot contribute much when it comes to the specific routines of research within a particular field. But the research worker himself may sometimes be unable to present his way of working as part of a course in methodology. It is not inconceivable that it is more a question of passing on *attitudes* and *'life styles'* closely connected with the work. Some of the more technical ways of procedure might be explained in detail within a teaching situation, but in many ways the researcher should be looked upon as a *model* craftsman, whose 'peculiarities' may sometimes be well worth observing. Heretical as it may seem to look upon the academic worker in this way, at the present time, we must be aware of the fact that the problems of higher education are of a rather complex nature.

If we accept the idea that a researcher is in part acting as a 'model' for the students in a given field, it follows that the 'full picture' of what academic work is all about can only be found by watching the whole group of researchers in that particular field. While one member of staff may be 'admired' for his thoroughness, persistence and systematic way of working, another may become a source of inspiration when it comes to enterprise and 'creative fantasy'. 'Research' implies a vast variety of different activities, and progress is not attained in the same manner within all areas of study.

It is certainly worth discussing how the students may profit both from the systematic course program and from the far more incidental manifestations of the researcher's personality. Today, the old picture of the master, addressing himself to a small group of youngsters in the shade of a huge tree, might perhaps be replaced by that of a 'research jungle', where large groups are let in, to find that it is very difficult indeed to etablish any contact with the older ones, who are there already, and often following paths which are impossible to detect.

With such a colourful picture I mean to suggest that the qualifications for research, possessed by the various members of staff, must be demonstrated, in contacts with the students, and established as a result of an organised program of guidance or tutoring. Seen within this framework, there is still a claim on the members of staff *to learn* (or to get used to, or to accept) *to teach by acting as an example.* And this implies that researchers must be willing to make contact also with students who are *not* heading for a future career in their own laboratory. But since the number of students in most fields is so much greater today than it used to be, new ways of coping with the problem of contact must be sought.

Nothing we have discussed so far removes much from the statement set forth in the beginning of this chapter: that university lecturers generally leave something to be desired as far as pedagogical skills are concerned. What I have stressed is that the skills in question are of various kinds, and that some of the skills are of a nature that makes it unlikely that they can be obtained through a training course within a short period of time. On the other hand, I am of the opinion that there is also the question of bringing about an improvement in such simple tasks as using a microphone or writing in a clear hand. How to use audio-visual aids of different kinds may probably be taught in shorter courses. But then again, what are we to do if only very few lecturers are willing to accept the invitation to follow a course?

Wankowski is probably right in suggesting that successful students (and future academics?) may often be seen as fitting the description of an introvert personality. As such they (or rather we) may have a strong dislike for having to practice — for training purposes — in front of assessors. A number of courses are in fact arranged in such a way that the participants may have a chance of actually trying out different techniques or procedures. What then, if we have to reckon with not only the shyness of the participants, but also their unwillingness to accept the educational 'expert' as one who can really grasp the particular nature of their problems of teaching, since he is an 'outsider' in the sense that he is not a professional mathematician or biologist?

Maybe the time has come to discuss the possibility that we shall have to accept the personality of the academics, and arrange the training period for the new members of staff in such a way that the problems of tuition are taken in small steps, at departmental level, having the young lecturer *gradually* take over the different tasks of teaching from an older colleague, carefully chosen perhaps, not because of his or her age, but because he or she has shown that a younger member of staff would benefit from an understudy of the modes of procedures.

Only a few of the older professors would perhaps be suited for functioning as models for younger members of staff, where a proper way of going about the different tasks of teaching is concerned. And they might be thought to be more competent in some fields than in others. But since one would probably agree which procedures have been the most succcessful in the past, and since a teacher might be reluctant to demonstrate to others the different ways of failure, we would perhaps not run the risk of having too many models of the less successful approaches to teaching.

In my experience being 'two on the job' would often come as a welcome arrangement even for the experienced lecturer, who would perhaps find that the students respond well to their type of teaching situation. I have tried the technique, both with smaller groups of students, and in larger lecture rooms, where 150 to 200 students have been present on such occasions. If normally a teacher has difficulties in making the students comfortable enough to dare to ask questions in such a large audience, the presence of *two* lecturers, who may be disputing with each other when difficult problems, or vague statements are presented, would sometimes ease the situation sufficiently enough to make the students willing to take the stand. If the professor says he does not understand what his colleague is talking about, it may help the students to admit that they also have difficulties in grasping the full meaning of a given statement.

As far as the individual lecturer is concerned, more frequent use of work in pairs would often reduce his feeling of loneliness and anxiety, which can so easily be an outcome of a confrontation with the challenges of a 'one man show', especially perhaps when the group 'out there' looks a not too friendly crowd. It ought, therefore, to be comparatively simple to have the lecturers accept this kind of arrangement, even if in this way they have to double the amount of time spent with students each week!

CHAPTER IV

Janek Wankowski

DISENCHANTMENT, A SYNDROME OF DISCONTINUITY OF LEARNING COMPETENCE

1. How scholars became 'enchanted': a sense of learning competence as a currency of emotional well being

There are, in my experience, as many causes for academic failure as there are students and teachers. But there are also themes of dysfunction discernible in each individual's inability to learn effectively in a new setting of formal tuition at university.

I have tried to observe such dysfunctions and found that attempts to discern general patterns provided me with conceptual frameworks of the difficulties encountered by my students. Thinking about their problems in terms of themes, however tentatively held, helped me to adjust my tuition to their individual needs; encouraging my students to discern such patterns helped them to re-establish their competence in learning.

Here I shall try to discuss only one such theme under the heading of the syndrome of the 'disenchanted elite'. I should like to propose a thesis that disenchantment amongst some students arises from a sudden discontinuity of learning competence on entering university.

The word 'elite' is to me indistinguishable from the word 'elect'. This is not only because all elites regard themselves as in some way appointed or chosen but also because, to me, social phenomena tend to acquire religious connotations when they develop an institutionally selective ethos.

I think that any social institution, and by this I mean any social framework of conduct, work or ritual, which makes for externally imposed demands on an individual, arouses in him conflicting tendencies of going with the system of impositions and of opposing them. Both tendencies are, to me, necessary in the process of growing up and in the establishment of a measure of autonomy. But both may induce severe stresses in the course of the social inter-relationship between the individual and the group.

The first stage for playing out these stresses is the family, the second, undoubtedly, the school. It is in the school that the entire force of social coercion protectively hits the child with its full weight of restraint, demands and carefully rationed out praises which engender conflicting feelings of competence and guilt.

There can be little doubt that the joys of self-importance, derived from competence to deal with scholastic demands, bring in some measure of comfort and make the long hours of boredom and restraint easier to endure. But such frustrations are not altogether endurable if one remembers that the human organism, adapted basically for mobility, must, for some 10 to 15 years of its early life, acquiesce in being tied to both the bench and the factory hours of the classroom. Something somewhere, has to give or to explode. But the young are resilient and can endure much for the sake of some tokens of comfort.

Meanwhile, from the stresses of scholastic coercion a sense of competence is born and becomes the chief emotional currency of well being in the newly mastered world of home and school. But since its birth is never devoid of the feeling of resistance, repressed and known only as guilt, the emerging virtue of competence acquires, like all compulsive convictions, a feeling of inner strength, a brand of election and an armour to withstand the future stresses within the familiar hedgerows of the scholl world.

Erik Erikson's psychoanalytical insight, always profound in educational matters, captures this state of affairs very aptly:

> 'The school age... finds the child, previously dominated by play, ready, willing and able... to realize actual roles (previously play-acted) which promise him eventual recognition within the specializations of his culture's technology. I would say, then, that *competence* is the specific strength emerging in man's school age. As the play age bequeaths to all methodological pursuits a quality of grandiose delusion, the school age leaves man with a naive acceptance of 'what works'.
>
> As the school child makes methods his own, he also permits accepted methods to make him their own. To consider as good only what works, and to feel accepted only if things work, *to manage and to be managed can become his dominant delight and value'*.
>
> (Erikson, 1971).

This simple formulation, by Erikson, of what is perhaps the most important condition for successful learning, is also known as a need for protection and a

need for exploration (Sandven 1979). Properly understood and deeply reflected upon it constitutes, both in its most primitive and most advanced form, a meeting point of cognition and affect — a key to all effective methods of tuition and learning, including all forms of psychotherapies. A conscious awareness of the importance of this vital condition of learning, or its intuitive, subconscious equivalent, constitutes the most powerful tool in all didactic activities: in self-tuition, in teaching others, in advertising, persuasion, propaganda, inspiration, deception and all other forms of 'shaping' human behaviour. The most primitive forms of security and encouragement to exploration are of course, single words which confirm our knowledge and increase our power to manage and explore. The most advanced ones are the formulations of theoretical constructs and models of thinking, or of scientific theories. I will return to this theme in later chapters.

2. 'Enchantment' of academic pupils

The secret delight of managing and of being managed is often most dominant amongst the so called 'academically able' pupils. In school, such pupils become gently but persistently pressed into a more and more demanding atmosphere of co-operation with their teachers towards a common goal — an excellence in external examinations. Such an atmosphere must inevitably develop into a mutually supportive, 'mark conscious' ethos.

An 'academic pupil' finds himself continually locked in a relationship of mutuality (Erikson, 1967) with his teachers. Teachers of 'academic pupils' live on the progress of their charges, no less than the pupils themselves are sustained by the encouragement of their teachers. Every tick planted squarely on the margin of the exercise books strengthens the bond of the mutually accepted goal of success; every cross throws a shadow of failure; every nine out of ten mark becomes a potential smile of mutual recognition at school breaks.

To a pupil, these tokens of appreciation become, imperceptibly, the currency of emotional security — his foundation for 'academic confidence'. There may not be much mutual respect in these pupil-teacher bonds, but there must be a strong bond of common determination to meet the demands of external examiners — common judges if not common, though logistically accepted, opponents. The tangible fruits of such an 'academic mutuality' at school are the matriculation grades of the General Certificate of Education (G.C.E. 'A' level grades).

3. *How disenchantment comes about: differences in the mutual support between students and teachers at school and at university and a state of imbalance between exploration and security*

Briefly, the situation at school seems to be like this. Teachers train individual pupils how to pass external examinations through mastery of the subjects as reflected through the examination structure. The loyalties and their concomitants — the emotional and economic 'pay off' for both teachers and pupils — are derived from the same source: the number and the quality of the G.C.E. 'A' level certificates (Hajnal, 1972). The pupils sense the nature of this mutual commitment and many, particularly in the relatively small classes of the 'sixth form', feel extremely secure and successful as scholars and as individuals in their own right. They are often shocked beyond all measure when the same 'pay off' elements of tuition transactions are absent from the vastly different university situation.

The first loyalty of a university teacher is essentially 'cosmopolitan' — a loyalty to the 'reference group' of other academics, scattered throughout the world, but working in the same field of research (Hatch, 1972); a fraternity of interest invested in the subject of study (Medawar, 1972). The lifeline of academic existence is mutuality with other researchers and scholars in the field; the tangible currency of mutual respect is the number of publications. Their appreciation of their impact on the given field of research constitutes the emotional, if not the economic 'pay off'. The quality or the number of students' awards are inevitably the secondary currency of the emotional satisfaction of their tutors. There exists, no doubt, a great deal of feeling of dependency on students who provide stimulus and the 'raison d'etre' for resources and thus, for academic inquiry, but an interest in their day-to-day progress becomes a matter of constantly nagging self-discipline; as such it may belong to those regions of the mind which lie largely 'beyond the pleasure principle'.

Furthermore the mutuality of support at school between teachers and pupils occurs in moments of tuition, whilst at university it is probably seldom the case. The highest level of emotional satisfaction for tutors — their reward for academic enterprise — occurs in the moments of research activities, research reporting and by the exchange of research information. The chief motive for academic enterprise thus tends to lie outside the ambit of tuition. For students such feelings of academic satisfaction might occur at tutorials and seminars but there can be litte doubt that even in this close contact they instantly discern the lower 'pay off' elements from those they experienced at school.

4. The student's role

The student is expected, in this scheme of earning academic awards, to become an independent learner. Many, not unnaturally, respond to this encouragement towards independent study and, progressing from strength to strength, begin to learn to judge the fruits of their own academic labour. But many are clearly not prepared for this lonely toil, in spite of being trained specifically for independent learning.

Whence the confusion we might ask? The answer seems relatively simple if one is prepared to grant that even the intellectual paragons are subject to the normal range of emotional responses to the social forces around them. One needs only to reflect upon the nature and the intensity of social support derived from the varying ratios of the 'child-parent' and the 'pupil-teacher' encounters.

An individual child has usually two or more adults (his first models of significant figures) to form bonds of mutuality (emotional interdependence). When he finds himself at school the pupil/teacher ratio is usually quite considerable. A ratio of 1:30 to 1:40 would be most common. If his 'academic progress' is good the size of the classes or the subject 'sets' gradually decreases till he finds himself in a highly selected small community of the sixth-form group (say, approximately 1:10 to 1:16, or far less in some subjects). The proximity and the immediacy of the tuition contact, with all its attendant emotional support, thus grows apace. As learning becomes more difficult and the standards more demanding the emotional 'pay off' and the feedback from the teaching situation become more copiously provided. It is through the immediacy of this intimate contact — a feature largely unacknowledged and seldom consciously discerned by the pupils or the teachers — that the pupil learns how to study and how to prepare himself for university education. But, when, at last, he enters university he attends mass lectures of anything from 50 — 150 students. True, his tutorial groups might be small but it takes a long, long time before his 'thermostat of emotional warmth' registers values of acceptance and recognition equivalent to his past tuition experience (Hatch, 1972). And once the 'pay-off' of mutuality between student and teacher becomes unbalanced and, with it, the fulfilment of the need for exploration and security ceases to be apparent, the state of disenchantment ensues quite rapidly.

The summary of the considerations of how 'disenchantment' comes about can be made as follows: academic competence at school may be regarded as an outcome of successful performance during learning tasks — a currency of emotional satisfaction which sets up expectation of a future success which, in turn, enhances performance.

With many pupils — if not with most — this 'deposit account' of competence and a charge of optimism, is not self-perpetuating and dissipates with an absence of success in performance. This is particularly so if the successes in performance were obtained in any highly selective, but also very stereotyped educational milieu where the 'chosen few' (Furneaux, 1961) are subject to the process of 'pedagogical hugging' which inflates promise.

When in a different milieu of tuition at university the charge of promise does not seem to help in bringing about an instant success, many of the more anxious individuals panic and produce the syndrome of the 'disenchanted elite'. This syndrome is a natural outcome of an over-institutionalized tuition in the over-selective environment of secondary schools, particularly in the 'sixth forms' (Musgrove, 1971).

5. What kind of person may become prone to disenchantment?

(i) Educational tractability of the confident students of a phlegmatic disposition.

It is the more highly emotionally sensitive individual who is likely to show the syndrome of the disenchanted elite. There are, however, some fortunate people who are not likely to be unbalanced by the transition from school to university. George Stern labels them, most aptly, as 'educationally tractable' (Stern, 1970). Liam Hudson's 'yielders' might also fit into this category (Hudson,1970)

It is, I think, worthwhile to spend some time in discussing a few problems of their presence amongst academics.

(ii) Constancy of learning behaviour

However skilled the process of pedagogical conditioning in the 'sixth form', the expected constancy of learning competence is shown only by a small section of students. I can illustrate this phenomenon by examining the relationship between the G.C.E. 'A' level grades and degrees, and by regarding the correlation coefficient of this relationship as an index of constancy of learning behaviour at two successive levels of formal tuition (Wankowski and Cox, 1973).

The overall correlation coefficients for both males and females are persistent but small ($r = .29^{**(1)}$ and $r = .24$ not significant, respectively). They are, in themselves, an indication of an over-inflated expectation of the benefits of a selective process for academic education, crowned by the sixth-

1. The degree of probability is shown by an asterisk: * $P < .05$, ** $P < .01$, *** $P < .001$.

form tuition. (This data pertains to the final position of the Random Sample studied by me, after six years when all students had completed their courses of study.) The trends revealed by this study have been confirmed by analyses of the two successive yearly intake of students (Holder and Wankowski, 1980).

When, however, the relationship between G.C.E. 'A' level grades and degrees is examined with reference to temperament, as assessed by Eysenck's personality inventory, the effects of constancy of learning behaviour between two milieux of tuition alter drastically. A considerably higher correlation between G.C.E. 'A' level grades and degrees occurs amongst stable introverts (phlegmatics): an $r = .51^{**}$ for males and an $r = .52^{*}$ for females, whilst the coefficients of correlations for the other three typologies (the stable extraverts, emotionally labile introverts and extraverts) become not significantly different from zero. Thus it seems that young people of a phlegmatic disposition display a considerably stronger tendency to preserve the constancy of their learning prowess, as reflected by their marks in the matriculation examination and in the grades of their degrees,(1) than their colleagues of a different temperamental make up who tend to show greater variations between their academic attainment in schools and university.

Two points are worth commenting on in this context: (a) if there is still, amongst educationalists, a tendency to emphasize the fact that school matriculation grades, and all that goes with them, are still the most significant predictors of success in higher education, they must consider the possibility that it might be only a small proportion of the student population (the phlegmatics, for instance) who contribute to this trend and who, at the same time, mask the still more impoverished relationship between attainment at two successive stages of education; (b) that the notion about the statistical phenomenon of 'restricted range' (Parkyn, 1967) which is said to diminish the effects of association between admission grades and degrees, because the students are already highly selected by 'ability', should perhaps be revised when temperamental dispositions of students are taken into consideration.

(iii) The succesful student

A sketch of an academically successful, phlegmatic student, emerging from my studies and from my work as a teacher, could be as follows: a relatively independent and versatile learner, readily adopting new ways of tackling his problems of learning as they arise. Unruffled by demands, pressures or lack of them from the tuition side, he is tolerant, though not uncritical, of his tutors and friends. Ready to put up with inconsistencies and petty regulations of departmental or campus administration, he weaves the outside pressures

1. First degrees in Britain are classificed into four Honours degree classes (Hons. I, Hons II div. i, Hons. II div. ii, and Hons. III and pass or ordinary degree).

through the well-established programme of his inner confidence, certain that with enough work, good luck and not too deep an involvement with the demands of academic life, the time of graduation will come and pass, as yet another landmark of pleasant toil, on the way to other hopeful expectations.

There are thus some fortunate people who are not likely to become so easily susceptible to institutional 'enchantment' which might enslave them by its structure, however benevolent. Subconsciously they have learned how to stoop to conquer. To fit snugly into things as they are is to gain complete mastery in the end! But to claim that such people are many, even amongst the most successful, is to be unreasonable. A very interesting study, though not moderated by a standardised psychometric test, was done by Fazakerley (1972) at Manchester Polytechnic which demonstrated that the amount of help a student received depended on whether he/she was labelled non-conformist (unacceptable) or conformist (acceptable) rather than on levels of academic ability; the conformist received the help.

(iv) An unsuccessful or a weak student

Presenting a sketch of some attributes of the 'academically vulnerable' student I would say that, prone to impulsiveness, he enters university with little idea of how his decision fits into the pattern of his future endeavours and suffers a shock of disorientation at the beginning of his studies. From this he seldom recovers. Here an ambivalent feature of his temperament is immediately apparent: depending greatly on support, response, and stimulation from other people, particularly those in authority, he is not prepared to approach them when in distress. This reluctance is not at all helpful to his tutors who would be only too ready to take more notice of his initial loss of confidence (Kipnis, 1971). His work patterns, style of study and preparations for examinations are very haphazard. His study hours are generally shortened by preoccupation with extracurricular activities (Maclay, 1968). Temperamentally he tends to be rather extraverted and anxious; egocentric, excitable, impulsive, exhibitionist and sociable. It is not surprising that other studies of unsuccessful students seem to support this picture. He is also described as lacking self-reliance and self-control, persistence or tenacity of purpose (Saenger-Ceha, 1970).

Such an array of adjectives seems to be very negative and portrays a profile of a difficult person. But since these temperamental qualities are but an outcome of his life-long struggle to achieve an equilibrium of emotional existence and since his habits of behaviour have, in the past, solved even his academic problems he needs to be understood rather than rejected.

6. How to reduce the impact of disenchantment

I do not know to what extent I have succeeded in conveying my view of the syndrome of 'academic disenchantment' as a reaction to an unfulfilled promise of competence, derived from previous institutional comfort — largely a subconscious process of self-conditioning within a specific milieu, which 'programmes' the mind with a set of inferences, untried by wider experience.

I also want to convey a point of view that this social phenomenon is an aftermath of a too easy enchantment of people prone to self-fascination; such people tend to acquire, only too readily, a conviction that a certain habit of dealing with some problem will, automatically, solve all other problems of life. I want to show also that it is, particularly, the more emotionally labile people who are susceptible to self-fascination (phantasy life). Their anxiety helps them to settle down in a familiar and protective milieu — however hateful it might seem, at times — but, on the other hand, to become more easily unsettled in less structured and non-directive conditions.

It is, on Bannister's assessment, the 'personal construct' of the 'unusual' which may be evaluatively 'bad' for anxious people (Bannister, 1962). Perhaps the shortest way to convey the meaning of the mood of academic disenchantment would be by saying that it is like the reaction of some other self-banished elects longing, as it were, 'for the fleshpots of Egypt', the 'fish and chips' on the Costa Brava or 'I wish someone would tell me what to do' at university; a state of distress, due to nostalgic feelings for the past from which a person desperately wants to run away to a new world, which seems a desirable but also a frightening substitution.

I would not, of course, claim that the vicissitudes of this syndrome are the only causes of student difficulties — there are obviously many, many others. But I would not hesitate to state that, from my experience, emotional disenchantment, arising from an initial academic and social disorientation, on entering university, is one of the most important factors in student failure. I would at the same time like to suggest that a great deal of disenchantment could be reduced and moderated by skilled and enterprising tuition.

The problem is of course, when and how to do it; certainly not by another bout of academic selectivity, nor by a handbook on what to do, or by preaching, precepts, or mass 'teach-ins' at freshers conferences, but more likely through the recognition that it is the accumulative effect of self-conditioning at school which builds up a mountain of difficulties in a different milieu of tuition at university; and, consequently, that it is by a process of levelling down this mountain that some measure of really independent competence, not unlike that displayed by phlegmatics, may be won at school, and some of the shaken academic confidence be restored at university.

7. How to narrow the chasm of differences in tuition

(i) Congruence and dissonance of 'physical needs' and 'academic presses'

Employing, at this point, Murray's concepts of 'psychological needs' and 'environmental presses' (Murray, 1938) and their interactions resulting in congruence and dissonance, we say with Stern (1970) that the personal needs of anxious students for security and self-esteem may be congruent with 'academic presses' in tuition through the use of coercion at school (social or personal as between pupils and parents, teachers and other pupils). But such a congruence might be in a state of 'artificial equilibrium' which may become easily unbalanced as the immediate, coercive factors cease to operate at university while the distant ones — final examinations — are looming large on the horizon. Thus the congruence of the individual's needs and the tuition presses might produce a sense of personal satisfaction and fulfilment in one tuition milieu but, when the nature of any of these factors changes, a sense of disorientation and emotional discomfort will produce a dissonant relationship.

Since the emotional needs of the individual student are not likely to change much over the short period of time, such as that between school and university, it is the changing pattern of tuition which is most likely to contribute to the feeling of disenchantment and to the subsequent loss of academic competence. The anxious student will be the most ready victim of such a change unless he is, in some way, trained to withstand the shock of the sudden deposition from the pedestal of the academic elect.

(ii) Practical recommendation towards reducing student attrition

Universities were aptly described as 'research establishments with students' and, as long as they remain in this position, they should project this image very clearly to their prospective students, warning them in no uncertain terms what lies ahead in the period of transition.

The student who has learnt to depend on others has to learn how to depend on himself. No wonder his plight seems great, his dissatisfactions manifold; his susceptibility to failure exacerbated out of all proportion by the very system of tuition which was designed to make him an independent learner. In order to help students to adapt more easily to the tuition patterns prevailing at university, they should, as suggested before be given some foretaste of these methods at the 'sixth-form' level.

CHAPTER V

Kjell Raaheim

THE NEED FOR DEVELOPMENT OF STUDY SKILLS

Psychological tests and prediction of academic ability

The question of how to assess young people's opportunities in a university setting is raised on occasions when the number of new students seems to be increasing beyond the capacity of the institutions of higher education, or when a certain institution is faced with a reduction in its financial means. Some years back one witnessed in Scandinavia attempts to make arrangements for the use of psychological tests to determine, *in advance,* who would be fit for the intellectual problem-solving activity at university. Today one can sense that the faith in psychological tests has, to some extent, been lost. However, there are still voices to be heard advocating the view that *some* kind of selection procedure must be found, and also that there is today an increased demand for such procedures, since society has itself become, increasingly, more demanding and complex.

It is my firm belief that very little is to be gained by using tests to assess intellectual prerequisites of some general nature for the university studies which have not yet been entered upon by the one being tested. The following points will perhaps elucidate this view:

(i) Psychological tests are of little relevance outside the situation in which the tests are taken.

A psychological test may be seen as something different from the everyday procedures of assessing knowledge and skill, and different also from the various kinds of examinations in school and at university. The test procedure is — like other scientific experiments — a highly regulated, standardized affair. The situation under which the testing takes place is such as to make the conditions as equal as possible for all who take part in it. If it is a question of the so-called 'intelligence testing', one tries to unveil the more or less 'naked' abilities, which are held to be functioning also in everyday life, but are there, to a large extent, 'wrapped up in the clothes' of motivation, interests, personal experience and self evaluation.

If one is to make predictions, on the basis of the results of a test, about the

future performance of an individual one must look for an equally standardized situation. Normally this situation obtains in school where a student's examination marks are compounded in a similar way as the scores he may receive in a test. School marks might be predicted with a reasonable degree of success on the basis of test results. But the relationship is far from being perfect. Even at school there will be room for 'disturbing factors' like varying enthusiasm and differences in the work load taken on by the pupil. In everyday life, predictions of success made on the basis of psychological tests are extremely poor, although psychologists sometimes behave as if the opposite was the case. And when it comes to the question of the development of study skills, there are data to indicate (see also Chapter VII) that an initial test tells little about later performance. A closer correspondence between the results of consecutive tests might, however, be found if, using another assessment test, care is taken to keep to the highly standardized and specialised problems or skills, at the cost of broader tasks which would demonstrate insight and understanding. I would hope that in academic life there will be a greater interest in the latter type of achievement than in the production of neat test results.

(ii) Tests of achievement at the time of entering university coincide with the students' stages of development that may vary with individuals

Also, in the area of intellectual development, there will be considerable individual differences which might be due to maturation. Since very few students can be said to have reached the peak of their intellectual performance when they enter university, initial testing may be of little value for prediction of academic achievement. As is the case with tests of personality factors, tests of academic achievement before entry to university will have a rather low predictive value mainly because of the uncertainty that will always exist about the *course* and the nature of development in every individual.

As mentioned above, the introduction of some kind of 'entrance test' has, in fact, been discussed at Scandinavian universities, despite the fact that a number of people would agree to the points previously mentioned and despite evidence from studies abroad.([1]) There is still the feeling that one should do *something* to ensure a reasonable selection of candidates, particularly in fields like medicine and psychology where the profession later to be taken up by the students, is one that makes great demands on them, e.g. where the responsibility for the welfare of other people is concerned. Psychologists in Scandinavia seem to have been confronted with a special challenge, since they

1. A mammoth national study of 9,395 university entrants out of a complete 1968 cohort of 27,315 sixth formers in 619 schools in England and Wales were surveyed, by a specially designed test of Academic Aptitude, by the National Foundation for Educational Research in England. The results were a complete fiasco as far as prediction of the final degree results were concerned: 'The data provide no valid base for the introduction of a system of threshold criteria for university selection'. (Choppin, et al. 1973).

are the ones who have suggested the application of tests for the selection of candidates in various fields of non-academic life. Their answer seems to be that a university course in psychology, in addition to providing the necessary *knowledge*, ought also to contribute to the development of personality and to the formation of certain attitudes, professional and otherwise. If this is so, the majority of students might be regarded as *becoming* fit for a professional career in psychology; all as a result of experience gained during the extended course in this subject.

Similar arguments might also be offered in other fields of study. In a great number of cases there will also be the problem of finding criteria of assessment, since obviously the final outcome of a course of study at university is, very often, unrelated to a particular professional role in society.

(iii) Human performance is not dependent on ability factors only

Even if there were psychological tests that could be used to assess factors of ability which remained stable over time. as well as factors that were of importance over a wider field of activity, an admission procedure to university based on such tests would still be of restricted value. As already mentioned above, the 'naked' abilities derived from psychological tests are operating in a situation where the test administrators have some control over the motivation of the subjects taking the test and of their ways of working with the tasks presented. Naturally some subjects would tend to put more energy than others into the attempts at task solution. But the enormous differences that exist in everyday life when it comes to ways of coping with problems, are greatly reduced in the artificial situation of testing in the laboratory of the psychologist.

I have no wish to deny (see also above) that the results of ability tests are often found to correlate with success in schools, where performance is assessed in a way that is similar to the procedure in a psychological test. But even here, in school, we find examples of performance that are drastically different from what could be expected on the basis of test results. From my own experience as a consultant at a rehabilitation centre in Norway I recall a case where a young boy whose test results indicated mental retardation succeeded in talking himself into being accepted for a course for car mechanics, and to demonstrate to all who thought this to be an impossible venture, that a strong enough motivation can work miracles. The explanation of success seemed to be related to the boy's habit of nailing wall charts of engines and/or parts to the ceiling above his bunk, where he spent hours before going to sleep in examining — studying — their details.

I can think of few schools where a motivation like this would not take a pupil a good part of the way. When at university a student may start with a prescribed amount of schooling behind him, and so the question of his

abilities might be looked upon in a more relaxed way. Naturally the freedom at university also implies the freedom of doing next to nothing. And what a *student* thinks his chances are may, to a large extent, also determine his success, or failure. But then, once more, we are left with the question of motivation rather than skill.

The question of who would be fit for studying at university can, of course, only be answered if we know what it means to study. Little may be offered by the laboratory studies within the psychology of learning to clarify this issue. In everyday speech 'to be studying something' comes close to 'hesitatingly examining and reflecting upon some matter, about which some uncertainty or doubt exists'. If this 'definition' is adopted where learning at university is concerned, I, for one, am tempted to conclude that 'everyone' is fit for studying. But then, to save the reader from thinking of the strange consequences this would have, I should hasten to add that within present day universities, life is not such that 'everyone' would survive!

Which cognitive processes may be developed

This is, of course, a question of such a general nature that a simple answer cannot be found. I would, however, like to comment upon it, while at the same time trying to build upon some empirical findings.

If the process of learning generally is looked upon as a problem-solving activity, studying at university naturally implies coping with tasks of a high degree of difficulty. Now, problem solving might be described as consisting of different phases or stages, where the demands on one's cognitive abilities may vary in nature from one stage to the next. For each stage, however, we might ask the question: 'to what extent will it be possible to influence this process so that the individual will profit from some particular type of experience?'

Faced with a situation where some routine type of activity is of little help, the first step towards solution could be said to be that of *formulating the problem*. It is not only a question of discovering that *some* challenge is there, in front of you, although it is of vital importance to become aware, in the first place, that you cannot proceed as if nothing has happened. For your success in dealing with the situation, it is necessary to get the clearest, or most precise, picture of the nature of your difficulty. We may assume that *some* people are better than others in quickly discovering what is really the matter. While they soon have their 'diagnosis' ready, others have but a vague idea or feeling that 'something is wrong', without being able to pinpoint the root of the difficulty.

Individual differences aside, is it conceivable that we all, given the appropriate training, would be able to *improve* our ability to formulate a problem precisely?

In an experiment (Raaheim, 1964) a number of students were presented with a practical construction problem which had to be described in writing. Half of the subjects were given some short, additional instructions to start their attempt at task solution by (a) determining, as precisely as they could, what was in this particular case 'the missing part' and (b) trying to replace a given implement found to be missing by using other objects at their disposal. The reading of these extra instructions did not take more than ten seconds, after which the subjects of the Experimental group had one minute to reflect on what they had just read. They were then presented with the actual problem situation, as were the members of the Control group, who had not been given any suggestions as to the general, or the proper ways of organising their thinking.

The results showed that in the Experimental group the number of solutions of the problem was 50% higher than in the Control group. Admittedly the experiment and its result must be subjected to a somewhat more searching analysis in order to unveil some of the deeper mysteries of the working of the human mind. But even if the impact of the outcome of this experiment on the general theories of cognitive psychology might be a little dubious, it shows that, for educational purposes, there is benefit to be received, even if in part this may be due to motivational rather than cognitive factors.

A precise diagnosis of the nature of the task difficulty will always be important for problem-solving behaviour. It is, however, easy to see that the impact of the diagnosis on the ultimate solution will vary from one situation to the next. At times the 'therapeutic phase' (point (b) above) is easily handled when, granted a correct diagnosis, the procedure towards the task solution is relatively straightforward. At other times it may be more difficult even with a precise diagnosis. Often enough in everyday life we are faced with situations where it is relatively easy to tell what is wrong, but where it is highly difficult to pin point possible ways of solving the problem.

Whether or not a given person will engage himself in task *solution* — once the nature of the problem has been made clear — is a question that depends on motivation and access to appropriate resources. Educational procedures, therefore, must involve considerations of both of these background conditions. Whilst it is likely that much is to be gained by training people to use suitable aids and implements, the influence of motivational changes may be thought to be of the greatest importance. In an experiment, Nielsen (1971) found that the problem-solving efforts of students varied systematically with what he called 'task courage', a concept different from 'level of aspiration' in that it refers to a person's real confidence in attacking difficulties of various types. Whether a student did in fact master a given task was dependent, to a large extent, on his *conception* of its difficulty, relative to what he himself had

previously stated to be his own 'level of mastery'. By manipulating the *descriptions* of the tasks — as easy, of average difficulty, or difficult — the experimenter succeeded in equivalently varying the percentage of solution!

Within both the 'diagnostic' and the 'therapeutic' phase of problem solving one can distinguish between *divergent* and *convergent* thinking. Divergent production is taken to indicate a production of ideas, which may take as its point of departure some concrete situation, but where flexibility and fantasy lead the thought process into different (divergent) channels, such as to form a basis for the original constellations of ideas. By 'convergent thinking', on the other hand, one refers to those ways of reasoning that lead to a concentration on, and an adherence to, a particular end result, as for instance a particular solution to a problem.

In the last twenty years psychologists have been trying to assess people's varying 'abilities' of divergent production. A long series of unconventional 'tests' has been made up to investigate 'creative fantasy' rather than 'intelligence'. The traditional intelligence tests have been regarded as placing too much weight on convergent thinking, asking of the subject the one and only 'correct' answer on each task presented. The new tests, on the other hand, are said to invite the subjects to show abilities which may be of more importance in today's world: originality, flexibility and fantasy.

Guilford's *Uses for Things,* which is a well known example of the new tests, presents the subjects with the task of suggesting as many ways of using a given object as possible. An individual who is not able to find more than *one* way of using an object — suggesting that a *brick,* say, can be used for housebuilding — may well be considered as having little fantasy. A greater production of ideas might be said to be demonstrated by a person who suggests *additional* ways of using the brick, such as having it replace a paper weight, or using it to help to keep a car in its position, when parked on a steep road, by placing the brick behind one of the wheels. Psychologists, who have conceived these new tests as easy ways of assessing *creativity,* are, in my opinion, running the risk of being mistaken. But there can be little doubt that both divergent and convergent production play important roles in intelligently using one's past experience in problem solving.

The question of whether it is possible to increase easily people's output in the production of ideas, by some educational procedure, is, however, of greater concern at present. And if the answer to the question turns out to be affirmative, one may well suggest that motivational factors are of great importance, perhaps to such an extent as to make the notion of 'abilities to create' a highly suspicious one. But again one might be satisfied by the improvement in the competence whatever its cause may be.

We can do little more than merely suggest an answer in the present connection. Experiments have been conducted (Manske & Davies, 1968) to

find out if some short instructions would be influential, as far as people's 'ability' to suggest uses for things is concerned. When the subjects *were asked to* present 'wild suggestions', their proposals were quite different from what they suggested when the instructions were to present 'practical' ways of using an object. Admittedly one may feel justified in objecting that this is nothing more than stating that people (naturally) are likely to do what they are told. Yet, one might argue that the educational implications of such a statement are worth reflecting upon.

The student as the architect of his fortune

We may look upon the university as an educational institution, where the subjects of study are numerous, where the conditions for tuition are highly unsatisfactory at times, and where the teachers often seem to be lacking even the most elementary forms of tuition skill. But we may also look upon the university as a place of work, where representatives of different professions meet, not only to bring people of varying subjects together, but to have people who are established research workers cooperate with younger people, who have not yet decided which field of work they will choose as their future career. Regarded in this light, the problems of higher education may be described as those of having the students take the full responsibility for their own educational development, and of having to discover, in their own good time, that something might be learned from contacts with research workers, who neither seem to have the necessary qualifications to teach, nor to be willing to organise things in such a way that effective learning may take place!

Wankowski argues that rather than trying to improve the selection procedures at university, one should make a point of increasing the students' chances of learning. He finds that the majority of those who have difficulties in the initial phase of their studies are students who have somehow *lost* their ability to learn effectively. It is likely that this is, in part, due to the fact that the students continue to work according to the pattern they adopted in schools. Wankowski maintains that there is reason to believe that two thirds of the students are unaware of the effect their previous routines of both school and homework have had on their learning process.

The 'academic freedom' is what the students have to face from the moment they enter university. What we have found in Norway — when taking a closer look at students who have difficulties in adjusting to their new freedom — is that sometimes a whole term passes by before the student has managed to get through the first chapter of an introductory text book. I think that most students should be able to take full responsibility for their own progress, and to do so within a relatively short time. But this can perhaps only take place

when we, as teachers, stop behaving as if all students already had all of the skills needed for effective learning when they first enter university. Sometimes we are perhaps all too eager to demonstrate that our own lectures are more brilliant and useful than the textbook read by the students. The consequence of such an assumption may be that the student might think it highly improper to ask for help, or advice, since he might feel that he is making queries about lectures rather than asking for help in coping with the material read in the books. That the students do in fact need some help in organising their reading can be judged from the great demand for written summaries, reviews and hand-outs prepared by lecturers.

If we look upon the university as a production plant of knowledge, it follows that the students — being in fact the most important producers of tomorrow — must be given a a thorough description of the most efficient ways of producing their goods. No industry would have a reasonable chance of surviving if newcomers, under training, were simply given the necessary tools, without any instructions on how to use them. But, at the same time, even an apprentice who has an excellent introductory program, should not hope that everyone among his experienced colleagues, by being a good craftsman, will also be an efficient *teacher*. The apprentice might do well in *watching* his older colleagues, in order to pick up the odd trick of tackling a difficult problem.

There is, of course, more to learn at university than what is officially taught by lectures. But watching the various activities of the different members of staff is today obviously more difficult than it was years ago, when the number of new students was relatively small. There is also reason to believe that in some fields of work little can be gained by merely looking at others practising their skill. Yet, I would like to argue that something would be gained, were we — as teachers — more willing to encourage the students to take part in activities other than sessions in the lecture rooms.

Teachers often object to this and suggest that 'the good student' is supposed to find his way around himself, without a special invitation to join in at research seminars. In this case there is nothing left to do but to admit that life in general is just as hard to come to terms with as the university jungle, and that one might just as well start fighting, every man for himself, right away. Or perhaps it is possible to find ways of easing the tuition situation without too much effort from the teachers?

When people 'get to know each other' it often happens that certain qualities of their characters appear which may not have been seen to begin with. A research assistant may for example be able to point to conciliatory traits of his pedagogically 'unskilled' professor. Qualities not so easily discovered in lectures or seminars might have shown themselves in published

articles, or in daily conversations and contacts arising from the research work. What would be gained, then, if there were, generally, better contacts between colleagues of all categories — teachers and students — at university?

Any suggestion of how to make contact between an established research worker and lecturer, and the individual members of a group of 200 freshmen, say, is likely to be considered a worthless idea. But what would happen if the general scheme of tuition was built up in the same way as research work, so that the graduate students, tutors, and research assistants function as links in a chain between the newcomer and the more distant figures of academic staff?

As already mentioned, learning at university by watching others was probably less difficult a generation ago, when the number of students was relatively small. The students' knowledge of the peculiarities of their lecturers sometimes helped them to realise that *one* professor was someone who expressed himself best in his writing, whereas another had the ability to give precise, verbal accounts in reviewing a field of study without, perhaps, having done any important research himself. One member of staff could be seen as an original and enterprising researcher, while another as a particularly well-informed contributor to the already well established directions of study tasks. Perhaps with better channels of communication, a student could profit from such knowledge, even today.

Today students often challenge their teachers, to describe precisely the ultimate objectives of their lecturing, and to make clear the connection between different parts of the total program within a field. Students also want to know more about the research activities undertaken by their teachers, as well as about their ideas and ideologies. Sometimes the university teachers may get a feeling that students today are more interested in pedagogical questions than in the more fundamental topics of research. And finding themselves being constantly reminded of their pedagogical shortcomings, the teachers cannot perhaps be blamed for wanting to see the return of a time when the message was more important than the manner in which it was conveyed.

The student challenge of today is perhaps a natural side effect of the general situation in society, where everyone has a greater opportunity than before of influencing his own working conditions. But part of the student criticism may also be a result of a greater confusion about the situation of tuition and its relation to their future career. Only a minority of the 'apprentices' who can learn by watching the process of producing knowledge will later take up a position within the academic field of work. Perhaps it is not totally out of place to point to the finding of Wankowski and others (Jacobsen, 1978) that students who know more precisely what is likely to the occupational outcome of their stay at university are more successful as far as study skills are concerned.

CHAPTER VI

Janek Wankowski

ON THE VAGARIES OF STUDENTS' MOTIVATIONS AND ATTITUDES TO TEACHING AND LEARNING

1. Reflections on the phenomenon of students' wants

Students' attitudes to teaching and learning at university are most likely to derive from their *wants* and, consequently, from their expectations of how their *wishes* are to be met or fulfilled on entering an institution of higher education. But human *wants* are extremely difficult to assess and still more difficult to predict.

If human beings were as molecules of water tending to coalesce, to expand or to contract the distance between them under the influence of other, largely explicable, forces of nature, the questions about the nature of their most important tendencies could be settled with reference to one or other major law to which they would be subject. We could say, for instance, that with reference to such a law as gravity the molecules of water are like those of other liquids, whilst with reference to the laws of thermodynamics water is unique in its property of expanding when the temperature falls below freezing point.

Employing anthropomorphic imagery we could say that the molecules of water *want* to fall from the sky down the blades of grass, down the slopes of hills, down the waterfalls and rivers finding their way to the fjords and the seas. But perhaps one of the most important observations we could make would be that, in a given atmospheric or climatic condition, *all* molecules of water *want* to go downwards rather than upwards. Even in its unique tendency of expanding when freezing, *all* water molecules in a given area would *want* to expand uniformly and without much interference with one another, *all* reaching the state of common bliss of iciness!

Observing these more permanent states of 'liquid metamorphosis' we could say that to satisfy the *wants* and thus the expectations of water, all we should do is to let it run downwards or to let it freeze; to keep it running or to make it inert; for it is in these states that our relationship with water would become

67

not only supremely 'satisfying' to the *water* itself but also supremely manageable by us. We would arrive at the point of complete understanding of the motivational forces of water, knowing that it is only in the intervening states between the 'free-fall' and the 'ice-block' that we have to keep other possible influences in mind, if we are to do justice to the 'water-man' relationship.

Things are, however, not clear-cut with people for, continuing to toy with our aqueous-cum-anthropomorphic model, we could say that, motivationally, the phenomenon of water is relatively simple as compared with the phenomenon of mankind. The far more complex 'molecular assembly of man' achieves, invariably, not only a unique individual shape but also unique individual *wants*; some of them, sometimes, healthily beneficial to self and others and some, sometimes, pathologically skewed and dangerous, but most of them generally, largely hidden from his own conscious sight no less than from the eyes of others, and all of them very much different even in the similar cirumstances of one social milieu. The main trouble with thinking clearly about human *wants* derives from the fact that each person, although uniquely differentiated towards self-assertion, dominance and physical need for 'elbow room' is, simultaneously, commonly attracted by a perpetual need for 'togetherness'. In fact, the basis of a healthy personal existence is *not individual* but that of *persons in relation to one another.* As J. MacMurray (1961) said:

> 'The personal is constituted by personal relatedness. The unit of *personal* is not the 'I' but the 'You and I'.

With the 'phenomenon of students' things are even more complex and difficult for, in the period of late adolescence (most of it prolonged artificially by the formal dependency of schooling), the young individual is very much concerned with the problems of self-identification i.e., with establishing a new, independent relationship with his peers and with the adult world. At such times the most prominent common feature of individual wants is to cherish freedom of 'Separateness and of Self-interest' *most of the time* and of 'Togetherness and Others' interests for the remaining *part of the time.* Attempts at separateness must, at that time, be regarded as the primary theme but *self-mastery* through the *mastery of others* is undoubtedly its concomitant refrain.

Sir Percy Nunn's (1949) summing up of this principle of individuality: 'I am here and to be reckoned with', is the prevailing cry of each adolescent person and the word 'reckoned' the key to their inner motivation, implying a need for respect not only for the fact of 'being' (for this the word 'noticed' would suffice) but for the fact of being able to act and to acquire skills and

competences which may become links of mutual benefit with other individuals.

If, at this point, *I* were asked to seek the basic behavioural laws governing such 'socially related individuality' of each person, which would be as binding as the law of gravitation is to the molecules of water, I would try to discern them amidst the many ways in which humans learn to *master the world around them*. And if I were asked to describe what any individual seeks from any institution he happens to join, I would start by speculating on what kind of *mastery* or *competence* he is trying to derive from such an institutional foundation. Thus, in response to the problem posed by the title of this chapter I would say that students' attitudes to teaching and learning at university would derive from their desire to increase, to reaffirm, to gain or to find *skills, mastery* and *competence to cope with their world*. The fact that such skills happen, allegedly, to be of a so-called 'academic' nature does not exclude them from the generality of this human tendency (Wankowski, 1980).

But here instant provisos come to mind: (a) a student's world, with which he wishes to cope competently, may be largely imaginary. His adolescent feelings of powerlessness are only too readily transformed into impatience of unapplied ideas, which provide a wide scope for images of an obstructing or a compliant world. And (b) with most students their attempts to gain academic competence will be largely based on their styles of maintaining their competence at school. Both these intervening influences must be kept clearly in mind when thinking about students' attitudes to tuition and learning at university.

2. *Components of learning competence*

However imaginary we think the students' world may be, their academic competence, proved by the school examinations, must appear to all of them as very real (has not this reality been stamped with the official seal of the public examiners?) and, as such, it must give rise to an expectation of continued success. Consequently the style of learning, which has enabled such a student to maintain his competence at school, must be, logically, regarded as a model for successful learning at university. But, if we reflect that this style of learning has been developed and perfected, over long years, in some *very specific tuition milieu at school*, we cannot possibly grant that it will prove efficacious in any other, particularly in the very different circumstances of teaching at university. Ingrained habits of competence cannot possibly be expected to dissipate overnight on transition from one milieu to another. Competence in learning is a part of the competence in living, and thus a part of the individual's mental, moral and physical health. The world would be a

far crazier place than it is, if its precarious stability did not depend on the comforts of habitual dealings with the contingencies of life. Thus, in order to understand what kind of expectations and attitudes students bring with them, when they enter university, it is necessary to ponder about the more outstanding features of their school learning particularly those of the 'sixth form' which, as I said before, is, misleadingly, popularly regarded as preparing directly for the exigencies of advanced academic studies.

The most important components in developing the learning competence in school are, to my mind, the significant figures (parents, teachers and important friends) and the inter-reaction between them and students. It is quite possible that the nature of this 'social transaction' of tuition and learning may be considerably coloured by the temperamental dispositions of both parties. An initial attempt to explore these factors has been made within the scheme of my surveys and I will describe them briefly.

(i) *Significant figures as sources for security for academic exploration*

If we remember that a healthy personality is really *'a person in relation to other persons'* and that these most important 'others' were, in childhood, parents or other adults, rather than peers, we must assume that the most important components of learning to live in the world and of learning to live at school are adult 'significant figures' — the main reference points of behaviour, the sources of comfort or discomfort, approval or disapproval, rejection or protection.

Students, or people in the state of seeking competence in general, might accept or repudiate the regard of older or more powerful *'others'* but they will inevitably cast such figures in the role of parent substitutes. Teachers at all levels of education are cast in such roles and it is futile to deny this. The more uncertain an individual is of his own competence or strength, the more tenaciously he will seek the approval or disapproval of significant figures. If, for the reasons of deep aversion (imaginary or real), an anxious person cannot cast *people* into such guiding roles he will turn to ideologies or religions, and if these are not suitable he will invent his own ideological props. Healthy personal competence demands a solid point of reference and academic competence is no exception to this rule.

Thus, the first thing for the university teacher to remember about his students' deeply rooted attitudes is that, whether he likes it or not, he is very likely automatically cast into the role of being 'in loco parentis', not by the pronouncement of pedagogical rules or customs but by the habitually established, subconsciously elaborated programmes in each student's mind. The next thing to remember is that at the stage of adolescence (and, indeed, with a great many people throughout their lives) parents become, often *simultaneously*, largely suppressed targets for all dissatisfactions, attacks,

repudiations, envy and derision as well as equally severely suppressed objects of demand for endless rounds of comfort, support, source of skill and other supplies of the semi-magical 'omnipotence'. It is these mixed feelings about parental (and hence teachers') 'stupidity' and 'power' that unconsciously endow all 'significant figures' with an exaggerated importance whilst the young individual is learning to be a competent person. Most people, and particularly the more anxious ones, can seldom be expected to shed this, largely imaginary, 'love-hate' relationship.

Generally, true to the deepest psychoanalytic insight, most of us are 'endeavouring to make a world around us which will be suitable, if not appropriate for the relief of our tensions created by the emotional pattern of our early life' (Berg, 1957) and since the earliest tensions were experienced with reference to adult 'significant figures' they have undoubtedly contributed greatly in laying down an indelible programme for dealing with the world. As Freud wrote (1949):

> 'The long period of childhood during which the growing human being lives in dependence upon his parents, leaves behind it a precipitate, which forms within his ego a special agency in which the parental influence is prolonged'.

This attitude of dependence on 'significant figures' is expressed very clearly, and very frequently, in individual therapy of 'remedial tuition' and 'counselling', as well as in the supervision of academic research and theses. I tried to get a glimpse of this phenomenon in an experimental context and looked at it in the Random Sample studies (Wankowski & Cox, 1973). One point is worth mentioning here. The examination of students' impressions about their earlier education elicited references to 'significant figures' such as parents or teachers who were mentioned in connection with success or failure, changes of interest in specific subjects, or in connection with feelings of confidence or difficulties at school. It was hypothesised that students who made more frequent reference to teachers or parents might be those whose learning behaviour was more 'people-oriented' and who might, in consequence, become 'teacher dependent'.([1])

The influence of 'significant figures' such as teachers is obviously crucial in any transaction of tuition, as all early learning is structured with reference to other people amongst whom adults are of the greatest importance. This was confirmed by the statements made by the Random Sample students where 80% made *spontaneous* references to teachers as significant people who had a positive, i.e. helpful, or a negative (frustrating) influence on their scholastic progress in primary or secondary schools.

1. This factor emerges also from other studies of drop-outs e.g. Saenger-Ceha (1970).

When the statements of the most successful (Honours Class I) and the unsuccessful(1) students were examined, there appeared to be no difference between the frequency of reference to *school teachers* in a negative or in a positive context. When, however, both these types of statements were linked, on the assumption that a 'teacher dependent' scholar might be prone to remember teachers' influences in any context, positive as well as negative, an interesting trend emerged.

When the 'school teacher dependence' ratio was calculated from these statements for students in classes of higher and lower achievement in their degrees at university, a higher ratio was apparent for groups of students in the lower achievement range. The *overall* correlations between the 'school teacher dependence' scores and degrees do not however suggest any significant linkage, though an additional factor analysis suggests strongly that, in the male population, high 'school teacher dependence' scores are linked with high emotionality, whilst in the female population high 'school teacher dependence' scores are linked with high extraversion. This trend appeared to be strongest at the extreme polarities of populations which, at the most successful degree level (Honours Class I), includes mostly science students who tend to be introverted (less people-oriented), whilst amongst the least successful (with-drawals) the predominant characteristic is that of extraversion (more people-oriented). This trend seemed to be obscured by other factors in the middle range of the population and the breakdown by personality and by faculty showed that this indeed might be the case. A considerable negative correlation ($r = -.5^*$) between the 'school teacher dependence score' and class of degree obtained amongst stable and introverted females who tend to do better at university when they are less 'teacher dependent'. Analyses of responses of science students revealed that a similar, negative correlation obtains between 'the school teacher dependence' score and class of degree amongst males in physical sciences ($r = -.36^*$), suggesting that an ingrained *habit of dependence on teachers in schools might be linked with lower achievement at university* in this particular area of study. There is also a positive, though not quite significant, correlation between degree achievement and 'school teacher dependence' score amongst male students in the arts faculty. This might suggest that in this area of study, male students who were more 'teacher-dependent' at school might have an easier passage at university, perhaps because the arts faculty teachers, being themselves more 'people oriented' (extraverted and anxious), might understand their students better than teachers in the science faculty; they might be less detached and more supportive etc.

1. Students who left the university without a degree.

An interesting feature emerged from correlating '*goal orientation*' and '*teacher dependence*' scores of the Random Sample when it was divided into groups of degree achievement. A high, positive correlation ($r = .63^{*}$) was found in the group of male students who failed and withdrew from university. Perhaps, in these cases, it is their undue reliance on 'inspiration' from teachers in schools that becomes a source of disenchantment at university (Wankowski & Cox, 1973).

(ii) *Personality and temperamental disposition*

However great the controversy about the value of studies of personality, their importance to clearer understanding of human behaviour and of human wants, wishes and fancies cannot be disregarded (Entwistle & Wilson 1977). If we allow ourselves to be patient with only one approach to this extremely complex field of psychology, we might get a glimpse of how much such studies may help us to think a little more clearly about students' attitudes to learning and tuition.

Without detracting from the unique endowments of every individual, as well as from the unique transformation of these endowments through learning, we can nevertheless find some themes of similarities in behavioural tendencies of certain groups of people. We can attempt to classify behaviour on various 'personality trait' continua and to predict that, on the whole, person 'X' will tend to be more cheerful for most of the time whilst person 'Y' will remain predominantly in a mood of relative gloom.

My own investigations of students' problems as well as of the general problems of human learning have been enhanced by the use of personality measurements. I have found that, in spite of *all* their shortcomings, these measurements are strongly and persistently related to various aspects of the learning behaviour of my students, my counselling clients and other samples of populations who participated in my studies.

I think that these insights might be helpful to our quest for greater understanding of our students' attitudes to us and to our ways of teaching, as well as to our own understanding of the ways we may see ourselves as their teachers.

I will now present some of my analyses of students' educational attitudes, as related to the personality traits of extraversion and emotionality (Eysenck, 1965) and to the joint effect of these traits classified into four temperamental dispositions of Stable Introverts (Phlegmatics), Stable Extraverts (Sanguines), Anxious Introverts (Melancholics) and Anxious Extraverts (Cholerics).

Anticipating, perhaps unnecessarily, a great deal of scepticism and aversion on the reader's part to such classifications, I will ask them to bear with me for

a few moments, and to bear in mind Huxley's classical way out of such a dilemma when he said that.

> 'All systems of classifications tend in some measure to distort reality; but it is impossible to think clearly about reality unless we make some classificatory system'. (Huxley, 1937).

When personality traits of extraversion and emotionality are included in the analysis of relationships between variables, the complexity of influences conducive to success or failure at university becomes very great indeed.

First, there are significant relationships between admission grades and extraversion. Second, there are significant relationships between degree achievement and emotionality and extraversion. Third, personality traits of emotionality and extraversion are related to students' choices of subjects of study. Fourth, temperamental influences in choices of subjects of study are also linked with the success and failure phenomena in some departments and courses. Fifth, temperamental influences are also visible in analyses of sub-samples of students who attend for counselling. Sixth, there are clear discrepancies between the numbers of students of different temperamental disposition gaining first class honours degrees. Seventh, temperamental disposition is also linked with reasons for withdrawal from university. Eighth, temperamental disposition is linked with the 'lie' detection scale included in Eysenck's Personality Inventory. Ninth, temperamental disposition is linked with the syndrome of early disorientation in academic studies. Tenth, temperamental disposition is linked with the manner of study, preference for methods of tuition, preparation for examinations, attitude to teachers and opinions about schools from which students came (Wankowski & Cox, 1973).

A study of students' attitudes to tuition and learning in the sixth form and at university was carried out as part of the Random Sample investigation. A questionnaire pertaining to the sixth form tuition was administered in the first year at university, whilst a similar questionnaire about university tuition was administered during the second year. It seemed essential to obtain some picture of attitudes and habits of study at these two levels of learning and to assess, if possible, the degree of change. It was possible that students' readiness to change habits of learning might affect performance at university, particularly as the tuition methods in the 'sixth form' are very dissimilar from those used at the university.

For example, the Random Sample investigation shows the persistence of the 'dictation' method of teaching at this most advanced level of secondary education, designed for the purpose of preparing young scholars for university studies. The survey shows that in Britain at least *one* teacher in *five* might be using this teaching procedure in the 'sixth forms'; in some subjects this proportion might be as high as *one* in *three* (e.g. physics, chemistry,

geography). As far as I can ascertain, dictation is not used as a teaching method in universities. (Wankowski, 1974).

The statements made by some Random Sample students about this method of tuition are quoted to illustrate the point:

'Dictation 100% of the lesson'
'90% of lesson — dictation of notes'
'Dictation mainly'
'Almost entirely dictation'
'Entirely dictation — even methods how to carry out experiments were dictated'
'Dictation straight from textbooks, most of the lesson'
'100% dictation of notes to be re-written as fair copy for the next day'
'Blackboard and 100% dictation of notes as teacher wrote them down'.

The conditions and manner of study during the second year at university were also investigated. The trends of association of students' responses with personality or motivation factors became far less clear cut than those shown in the 'sixth form' investigation. The passage of time and experience in adaptation to the varied and very much more complex problems of academic life may have contributed substantially to the dissipation of such trends. Some traces of old adaptations did however remain.

An examination of the 'sixth form' effects suggests that, for the female students, choice of G.C.E. 'A' level subjects is affected mainly by extraversion. (Those who state that they took up their 'A' level subjects on advice of other people tend to be more extraverted ($P < .05^{*}$)). The more anxious female students tend to prefer discussions rather than lessons as a medium of tuition ($P < .001^{***}$) and work for examinations as the mood takes them ($P < .05^{*}$). They tend also to be critical of their schools (would not send their children to the same schools as they themselves attended ($P < .05^{*}$)).

Male students of a more highly emotional disposition tend to transcribe notes from rough to neat copies (compulsive systematisers ($P < .05^{*}$)), are not satisfied that their 'sixth form' education has prepared them for university studies ($P < .001^{***}$), and, like the highly emotional females, are generally critical of the schools they themselves attended (would not send their children to those schools ($P < .05^{*}$)).

An examination of attitudes to study and tuition at university suggests that higher emotionality amongst female students tends to be associated with a feeling of inadequacy (coping inadequately in their second year work ($P < .05^{*}$)) and hesitancy to approach tutors when in difficulties ($P < .05^{*}$).

Amongst males, higher emotionality seems to be associated with feelings of inadequacy in work during the second year ($P < .01^{**}$). The more highly emotional students would hesitate to approach tutors when in difficulty ($P < .05^{*}$) and tend to be more haphazard in their work ($P < .01^{**}$) than the less emotional ones. A haphazard style of work is also significantly affected by high extraversion ($P < .01^{**}$). Higher emotionality is also associated with the routine of transcribing notes from rough to neat ones ($P < .05^{*}$). There is a nearly significant ($P < .10$) tendency for the more extraverted students never to use prescribed reference books in their studies.

Generally speaking, emotionality is a more powerful influence in shaping the styles of learning and acquiring attitudes to tuition at school and at university than extraversion. It seems, on the one hand, to induce persistent states of uncertainty about work progress, hostility to schools, apprehensions about contacts with teachers, compulsive and ritualistic methods of formulating records and learning and, on the other hand, it makes for haphazard methods of study and preference for less formal contacts in tuition.

In order to check these interesting trends in a different population sample, similar questionnaires were administred to 151 Post Graduate Certificate of Education Students (Kwiatkowski, 1973).

A very similar picture to the trends found in the Random Sample emerged from this exercise. The following observations were made:

> 'emotionality is significantly correlated with lack of system in work and generally with the feelings of not being able to cope at university, the effect being particularly strong for females. The wish to become more systematic, the absence of ideas about future goals in life, as well as the tendency not to use reference books whilst studying and revising is also linked with emotionality.
>
> Extraversion is correlated with an unsystematic approach to work, a liking for tutorials and with the student's confidence in being able to fulfil his wishes; this effect is particularly strong amongst males. For males the feeling of being able to cope with university work is also correlated with extraversion'.

3. *Dynamics of circularity of personal, social and educational influences*

Having looked at the attitudes of students entering university we may be tempted to try to separate them into those which might be called *'social and personal'* and those which might be called *'academic and occupational'*. But such a division must be regarded as very superficial, since personal and social

competence is very often bound up with work or skill competence. This inter-relatedness can be illustrated by another exercise in the Birmingham surveys.

There can be very little doubt that miseries and dissatisfactions with social life will generally throw an adolescent, or even an adult student, from the path of successful academic progress. It is only in cases where such miseries are, by sheer luck or chance, sublimated by compulsive academic work that their influence might become advantageous in promoting learning competence, or in establishing obsessive academic commitments, popularly acclaimed as true academic motivation of 'learning for learning's sake'.

My readings, and my experience as a remedial teacher have given me some grounds to assert that social difficulties and insecurity are often associated with students' inability to do justice to academic work at university. But these associations are by no mean simple. An illustration from a special sample of students who withdrew prematurely from university in 1968 may corroborate this contention.

Possible causes for withdrawal of a sample of 170 students, who left university in 1968 without obtaining a degree, were indicated by *tutors* on a specially constructed list. The list comprised several areas of reasons for withdrawal such as motivation, learning, teaching and social factors. Analyses showed that 80% of students in this sample, who were known to have been *disturbed by social factors,* ([1]) experienced learning difficulties. These trends were checked by examining the responses of 69 students from the same sample([2]) who completed a similar questionnaire, and comparing their responses with those indicated by their tutors. The first relationship between the 'socially disturbing' factors and the difficulties in studies was confirmed, but another set of trends was also observed: *difficulties in learning* were clearly linked with *inadequate motivation*;([3]) 90% of students who were inadequately motivated experienced difficulties in learning. Moreover, *inadequate motivation* was associated with *dissatisfaction with teaching methods*; 75% who were inadequately motivated were not satisfied with tuition.

Motivation seems to be a very persistent link between all manner of influences contributing to success and failure at university. Since it is not a unitary tendency it cannot be properly assessed, predicted or too readily evoked by any special tuition routine or method of approach. But since its theme weaves so clearly through the maze of other influences in learning, its impact should be appreciated by people involved in tuition.

1. Too many or too few social activities. Undue pre-occupation with extra-curricular activities. newspaper or guild work, and girl or boyfriend troubles.
2. Only 69 students of the original survey who left university could be traced to fill in the questionnaire.
3. Assessed as future goal orientation (Wankowski & Cox, 1973).

However much confusion has been caused by this attempt to survey and to describe students' attitudes as influences in academic learning, and however pale and unformulated the concepts of such influences, and however inadequate the analyses, one feature has been clearly and simply quantified in the Birmingham surveys: *over 80% of the Random Sample students have ascribed their ease or their difficulties in pre-university learning to the influence of their teachers.* Allowing for the persistence of habits, attitudes, dispositions and, above all, hopes and expectations set by previous experience, is it not reasonable to infer that this important influence may be equally strong when students come to university?

4. *Back to the 'phenomenon of water' and the 'phenomenon of students'*

I hope that the reader has not, by now, forgotten our 'aqeous-cum-anthropomorphic' model of water molecules with which we tried to come to terms in our 'water-man' relationship at the beginning of this chapter. I also hope that the reader has experienced some measure of indignation that I should parallel such a simple model of relationship with that of the 'tuition-cum-learning transactions' of students and teachers. However far-fetched such a parallel may seem, it *had* its purpose in my scheme of planning this chapter. For, however great the present day recognition that problems of learning and teaching at university are very complex, the conceptual framework used in describing or discussing them is still extraordinarily narrow and not unlike the law of gravity which regulates the 'phenomenon of water'.

Many educationalists and administrators concerned with higher education still talk and think about learning and teaching in terms of two concepts of *nature* and *nurture*. The *G.C.E. grades* and the *Degree awards* are usually regarded as the most obvious manifestations of the student's native endowment. The reader might, very rightly, object that I am making an inadmissible simplification, but all I will do to defend this contention is to say that, from the experience of ten years' sales of the University of Birmingham Educational Survey, publications, papers and reports which have the term *'admission grades'* or *'G.C.E.'s'* in their titles, are invariably the first to run into second editions — so strong is the lure of the well-ingrained concepts which are still used in coming to terms with the complexities of educational phenomena!

All I was trying to do was to draw the reader's attention to the fact that by using only two or three more concepts such as personality traits of *extraversion, emotionality, motivation* or *teacher dependence*, the scope of

speculative thinking about problems of tuition and learning becomes spectacularly greater. The didactic power of the multifactorial approach in exploring the nature of human learning behaviour lies not in what relationships it reveals, but in suggesting how many other influences may remain unaccounted for. And this, to me, is the most useful lesson which is helpful in my work as a *remedial teacher at university.*

I cannot judge how much empathy or aversion this way of presenting to the reader my glimpses of students' attitudes has evoked. I know that to stray from the straight and narrow paths of the purely cognitive considerations implies the necessity of dealing with the *affective* concomitants of learning and, worse still, with the interpersonal transactions of tuition of which the emotional strains and stresses are an inevitable part. Yet we cannot, I think, avoid the commonsense inference that *teaching and learning* are *mostly, if not wholly, transacted in and through social situations.* Temperamental dispositions, and attitudes, and their concomitants of motives and goals, are all relatively stable habits of behaviour. They are all established within the context of the social transactions, and success or failure in learning is an outcome of the nature of such transactional relations. Social transactions always involve strong emotional undercurrents which are at any given moment extremely complex. It is this complexity which often frightens even the most persistent analyst of learning behaviour, but a total disregard of emotional influences in learning leads only to static resolutions of educational problems which will tend to fit a limited number of people and create wastage and attrition amongst many.

In touching upon influences of attitudes and dispositions in learning, it is necessary to remember that we are dealing with delicate issues impinging on the totality of each individual make-up. This totality includes past, present and future orientation rooted, most probably, in the bio-physiological imprints but never separate from the sets of habits which, in turn, were established through experiences of life. *Success or failure at university is,* by implication, *success or failure within a certain social context.* It is a social phenomenon and must continue to be examined as an outcome of a social transaction.

The 'phenomenon of water' is obviously not like the 'phenomenon of students', yet, I am quite certain, it is held as such by many educationalists. May not this effect derive, not only from the tendency to polarise thinking when things get too complex for comfort, but also from a general tendency for influential teachers and educationalists to treat the problems of human behaviour as an exercise in physics? In my studies at Birmingham I found, when I looked at the personality profiles of the postgraduate students taking psychology courses for the degree of Master in Education, that most of them

in the successive three years' intake tended to be introverted. Their tendency to restricted, theoretical, and rigorous conceptualization forms part of their style of life. These students eventually join the main body of the potential researchers in educational psychology in Britain. Should this be a more general phenomenon there would be no need to wonder that the gap between educational practice and educational research is said to be of an order of two generations.

Personally, having closely watched the educational development in Britain over the last thirty years, I do not think that this gap is likely to close very much. The underlying factor of dichotomy between educational theory and educational practice may be largely temperamental rather than rational or economic: a matter of not only 'contrary imaginations', but of most deeply rooted 'contrary motivations'.

CHAPTER VII

Kjell Raaheim

*THE FIRST EXAMINATIONS AT UNIVERSITY**

One may argue that here are *two* types of difficulties facing the student when first setting foot in the university: problems related to 'academic freedom', and problems of learning how to lead an 'academic discourse'. As a teacher one soon becomes aware of the latter type of difficulty. The results of the first examinations often show that the ability to handle a scientific problem by intelligently analysing it leaves much to be desired. When factual knowledge seems to be present to a reasonable degree, the art of *discussing* a problem seems to be under-developed in a large number of cases. The teacher may, however, be less prepared to give an account of his students' difficulties with *academic freedom*. He has himself, perhaps, had little difficulty in planning an academic career. And so it may take some extra fantasy to become aware that a number of students may get a feeling of despair and great uncertainty, when after years of highly regulated school life, they are asked to set the course of their learning process themselves. Admittedly entering the university has had an intoxicating effect, to begin with. The freedom feels good at first, even to those who later wake up to a reality of hopelessness. But, since there is reason to believe that most students have *some* difficulty in getting things sorted out, the teacher might perhaps do well in trying to look closer into the problem.

Brennan and Percy (1976), in their summary of the Lancaster investigation (see also Chapter III) stress that students of almost all faculties agreed that there is *a lack of concern*, on the part of the teachers, for students 'as people'. It does not matter whether this impression is real or imaginary. As

* This chapter has the form of a report of a research project supported by The University of Bergen and The Norwegian Research Council for Science and the Humanities.
Mag. art. Bjørn-Frode Jacobsen has been a co-worker from the start, and stud.mag.art. Arild Raaheim has assisted in analysing the data.

long as this *feeling* of being left to oneself exists amongst students, one should take action to try to do something about it.

In the autumn term of 1976 I began some empirical investigations at the University of Bergen. I took, as my point of departure, the results of the Entwistle study. My first aim was to get a picture of the reasons behind the high rate of 'dropping out' from the non-compulsory lectures in the introductory course in philosophy, logic and psychology; a course leading towards what is in Norway called 'Examen Philosophicum'; an examination which is necessary for the continuation of studies at university.

Looking at the graph of students' attendance at lectures in psychology, (Figure 1) I wondered if the shape of the curve may be the outcome of students' impressions of lack of concern among the lecturers.

It is possible that the drop in attendance was, in this case, partially due to the fact that this series of lectures formed an additional offer to students who were attending the regular introductory course in psychology, and that the

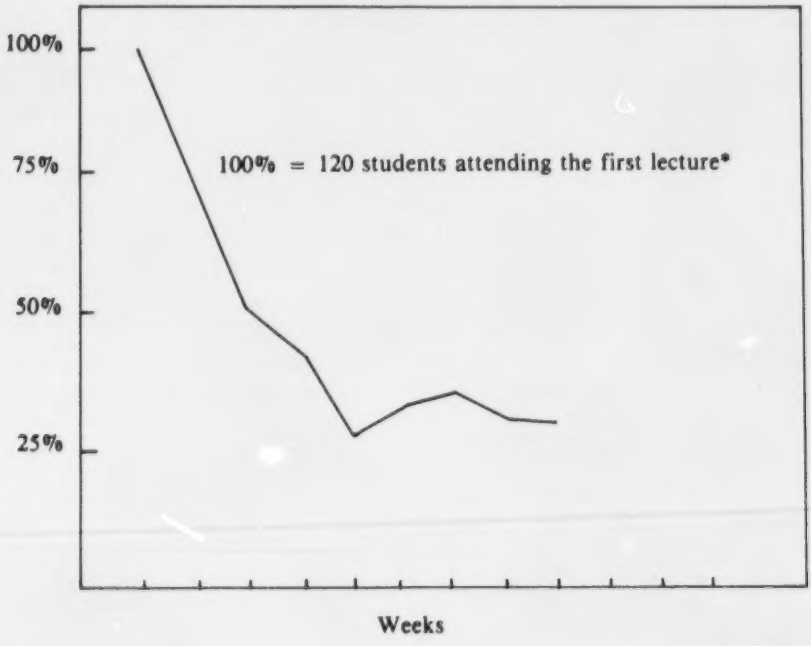

Fig. 1. Attendance in a lecture group in psychology — autumn term 1976.

*) The number of students attending the *first* lecture of a series is taken as 100%. This means that if the attendance is *increased*, the percentage will go above 100.

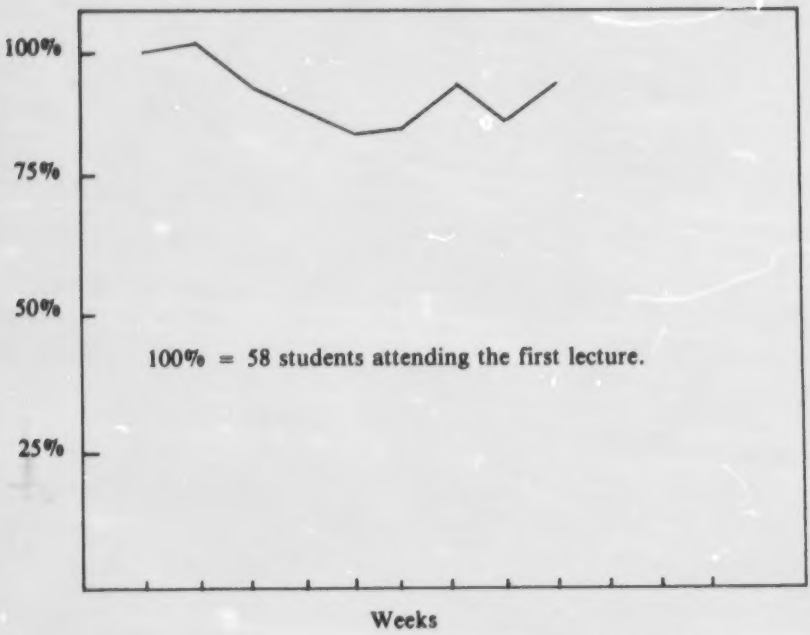

Fig. 2. Attendance in a group under experimental conditions.

number of students in the group (N = 120) was too large to treat this offer as a beneficial extra support. Still many lecturers will probably recognize the problem of attendance outlined by the curve as one they have come across themselves at times.

Dividing the students into a number of smaller groups is in itself no guarantee of an increased attendance. But what if a teacher tells the students that their presence *is* — after all — of great importance to the lecturer and that it is also interesting for him to learn something about the reasons behind a possible absence?

In our first investigation program we asked the students if they would be willing to co-operate in a scheme for improving tuition, by stating the reason(s) why they had been absent on a given occasion. Were they absent because:

(i) of illness, or unable to attend for some other reason?
(ii) they had an expressed wish to spend the time in a different/better way, e.g. by being left to themselves, or reading some other parts of the syllabus?
(iii) 'it just so happened'?

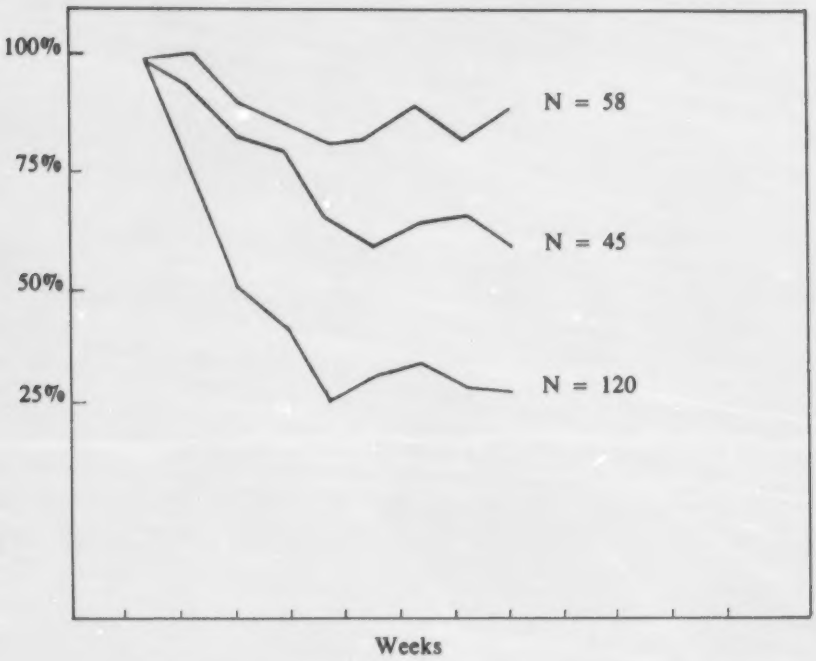

Fig. 3. Attendance in three different groups in 1976.

The curve in Fig. 2 is based on the attendance in a group where the number of participants at the outset was only half of that of the first group, but where, in addition, a list of names was passed around each time, for the students to list their presence and the reason for a possible, earlier absence.

Since nearly all the students are there all the time, there is not much to be gained by analysing reasons for absence in this particular group. Still we might like to know whether the enormous difference between the two groups looked at so far, is a result of the 'new signals' from the teacher, or is merely what can be expected with a smaller group. In Figure 3, therefore, we have compared the attendance in the first two groups (N = 120 and N = 58) with that of a third (N = 45), where the number of participants is even smaller to begin with, but where the lecturer has run the course in a 'normal' non-experimental way, without a list of attendance. As can be seen, there is reason to believe that *both* the group size *and* the new strategy of the lecturer, might be of importance in securing a better attendance at the lectures.

I am also presenting the curves of attendance in order to underline my opinion that it is wrong to think that poor performance, at the first examinations at university, is merely a result of a *general* lack of motivation amongst students of today. In my view both failing attendance and meagre examination results may be due to some *specific* factors, against which some specific action might be taken. So far, it seems possible to conclude that, at least as far as the wish to learn is concerned, very little effort is needed to awaken interest if it has indeed been dormant.

Before turning to the question of whether it can be assumed that the new students have the *ability* to learn, I will try to meet an objection that has been raised to my interpretation of the findings so far. Since names are taken down, the students of the Experimental group might have become afraid that their absence at the lectures might somehow have a negative effect on their

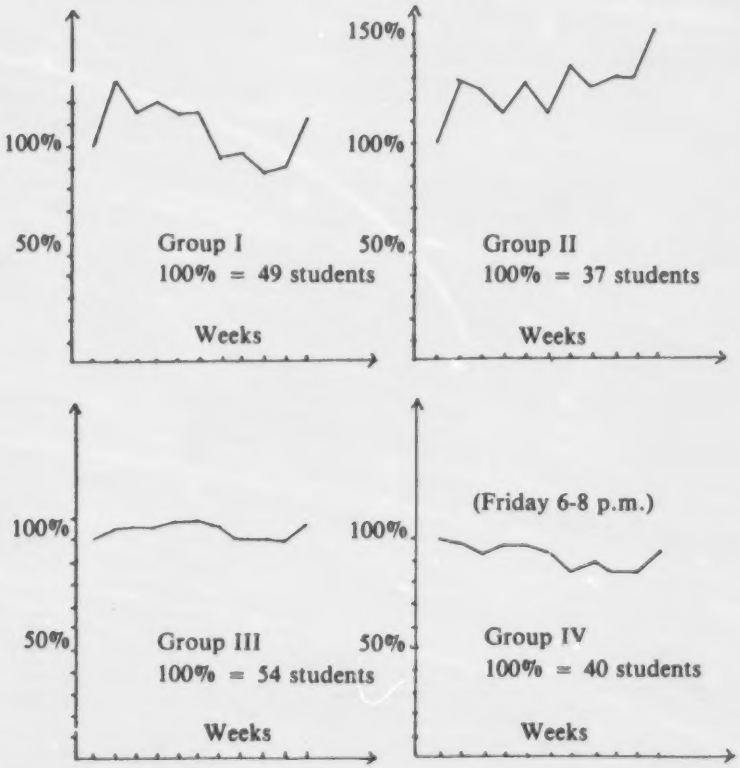

Fig. 4. Attendance in 4 lecture groups in psychology, autumn term 1977.

future career, although the experimenter had assured them that this would not be the case, and that the examination system of Norway is such that would prevent it. Figure 4 shows the curves of attendance in four different groups during the autumn term of 1977 — one year later. Only in the first group were names taken down, as part of a continued research project, the remaining three groups were merely asked to co-operate in the experiment of improving tuition.

A better explanation of the change in attendance than the one in terms of *fear,* is probably one that accounts for a change of attitude among students *and* teachers taking part in the experiment. Today we have a situation where more than 90% of the students are regular attenders, as a result, perhaps, of the new mutually shared faith that the students will really come, if they are expected to, and also that the lecturers will be concerned that their series of lectures will cover the important parts of the syllabus. There is now also a general agreement that tuition comprises all the necessary elements for passing the examination at the end of the course. In practice a term now starts by a 'contract' being set up between teachers and students by giving students hand-out sheets, where the lecturer has outlined the program of the course, and where the individual student 'signs up' for the parts which will fit his or her plan of work for the term.

A reasonable degree of attendance might be thought of as a necessary, but by no means a sufficient condition of success at university. Table 1 is set up to

	N	*Mark*	*No. failures*
Present on every occasion throughout the term	8	2.55	0
Absent once: 'Illness'	7	2.77	0
Absent a few times: 'Wanted to spend the time differently'	19	2.93	2
Absent a few times: 'It just so happened'	10	3.12	1
Irregular attendance	13	3.12	2
TOTALS	57	2.93	5

Table 1: Attendance and examination results of a group taking the introductory course in psychology, 1977.*

* The examination papers were marked in the ordinary way by external examiners who were without any knowledge of the experiment.

illustrate this point, rather than to indicate a particular relationship between lecture attendance and examination results. The table is based upon the data from Group I, Fig. 4, where students gave reasons for occasional absences in the way described earlier. The marking system in Norway allows for an accepted performance to be graded from 1.0 to 4.0. When marks between 1.0 and 1.5 mean 'extraordinarily good', or 'excellent', and are very seldom used, anything up to 2.5 will be considered 'very good'. An 'average mark' in social sciences is probably in the neighbourhood of 2.7. Anything above 4.0 means failure to pass the examination.

Leaving the reader to reflect upon the details of this table, I would merely like to draw attention to the fact that we have here — as is nearly always the case with the introductory courses — a result which, on the whole, must be said to be rather poor. It is often argued that this is but an indication that many students of today are 'less gifted' or 'unqualified' for studies at university. I myself, however, have some objections to this.

As my point of departure for a discussion of the 'abilities' of students, I will take the *variation* found between results of different types of tasks. In Table 2, we find Average mark and Percentage of failure, for three different essays in psychology towards 'Examen Philosophicum'.

	N	*% Failure*	*Mark*
'The coefficient of correlation: What does it tell you and what are its limitations?'	174	3.4	2.55
'Basic principles of human perception'	141	7.8	2.82
'Is intelligence a general ability? Discuss the question on the basis of psychological theory and research.'	362	26.8	3.10

Table 2: Examination results of three different essays in psychology towards 'Examen Philosophicum'.

The students' choice of essay has been found, by a closer examination of these results, to be based on slight differences in the syllabus for various sub-groups of students. Also a statistical analysis, controlling for a possible selection effect, shows that these results cannot be explained on the basis of differences in the general standards of academic performance among the students. There is, therefore, a reason to argue that when an essay demands a *description* of some factual knowledge — as with the first one in the table — the students have much better results than when an essay asks for a *discussion* of a question which may not be altogether very complicated. But while this

statement would perhaps cause little objection, it is still a question open for debate whether or not 'ability factors' are responsible for the findings. Is there, perhaps, among the students of today, a majority who must be regarded as partly *unsuited for* the task of leading a proper academic discourse? Or is it more correct to state that a number of students of today are, in part, *unfamiliar with* the style of intellectual performance asked of future academics — due to the fact that students are today recruited from 'non-academic' environments to a greater extent than was the case before? In order to throw some light on these questions, a 'training program' was planned for students in the first year at the University of Bergen.

The solving of intellectual problems Experiments with test examinations

Research results in the area of human problem solving have convinced me that insight into a situation, as far as intellectual tasks are concerned, is built upon past experience that may vary with the background of individuals. If problem solving is looked upon as a handling of unknown, or rather *deviating* elements, in a otherwise familiar situation (Raaheim, 1974), a necessary condition for solving intellectual problems would be that not all of the major features of the situation represent completely new challenges. There is reason to believe that the human abilities, constituting what we refer to as 'intelligence', would play their most important part in situations *where the amount of unfamiliar factors is of a moderate size* (see again Raaheim, 1974).

There is probably an agreement that an individual facing mere routine tasks would be able to succeed by repeating some well known patterns of reaction. But it is perhaps a little more difficult to appreciate that what may be needed, in situations where completely new challenges dominate the picture, is a determined, but at the same time unprejudiced, search for *new* information, rather than an intelligent reflection upon some well established knowledge.

To suggest a conclusion of relevance to our present concern: the first attempts at solving the new and unfamiliar intellectual tasks at university must be considered as an ureliable basis for making predictions as to future success, as far as the academic performance of the student is concerned. The good results obtained, when the first-term tasks are of a well known type (as with the exercise where the coefficient of correlation was to be described), might suggest that students generally cannot be considered 'unmotivated' or 'stupid'. There is reason to believe that differences in results between tasks reflect differences in important background factors.

In the years 1978 and 1979 the research project at the University of Bergen also comprised a series of *test examinations,* where the students could take

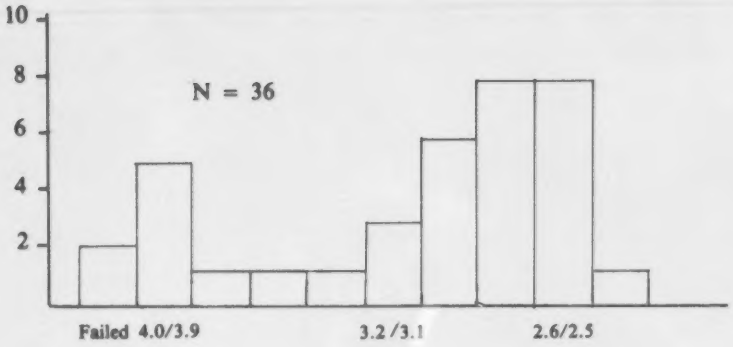

Fig. 5. Distribution of marks at the first test examination, Autumn 1978.

part in training sessions on an optional basis, in which an ordinary examination-type essay was to be written. The results of these first attempts at leading an 'academic discussion' were assessed in the usual way by our external examiner.

As mentioned in Chapter I, the students have been found to welcome the opportunity of getting some early feedback on their attempts at writing a scientific essay. At the same time, the nervousness connected with exams — even in a case where the result 'does not count' — has been found to result in a substantial number of students being absent on the day. On the other hand the results of these experiments with training sessions must be looked upon as highly interesting: for one thing, our suspicion that the student's first few steps on the road to an academic career are not always a reliable source of information about his subsequent walking speed, was given some confirmation. In five different sub-groups of students, where the number of participants varied from about 20 to about 60, we found the following correlations between the results of the first test examinations and the official examinations held a few months later: +0.13, +0.36, -0.05, +0.12, and +0.50. Furthermore, *the distribution* of the marks at the time of the first attempts at writing an 'academic paper' might be worth a closer look. Above are given the figures for one particular group, where careful control measures were taken to have the essays marked, in the usual way, by an external examiner who knew nothing about the experiments.

It can be seen that few students have results in the neighbourhood of the mean, which in this case is 3.1. There is nothing to indicate a 'normal distribution' curve. It is more likely a question of *two* different groups of students, having perhaps a different background before taking part in the

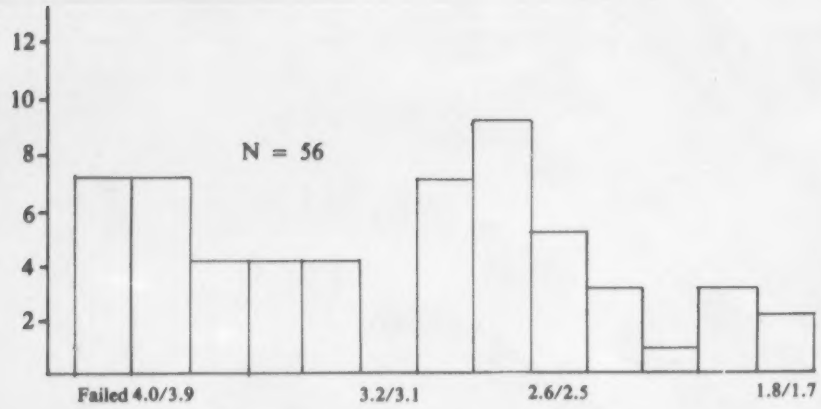

Fig. 6. Distribution of marks, first test examination 1979.

experiments with the 'test examinations'. It seems that the majority end up with an acceptable mark, whereas about one third of the students have such poor results that it might be possible to think that they have not, as yet, started reading.

Our conclusion — we must admit — is perhaps highly influenced by the knowledge of the results in a similar group, one year later, where another examiner assessed the essays. Having perhaps used the scale of marks somewhat differently, this examiner still leaves you with the notion of two separate groups taking the examination. The figures are otherwise comparable, since the test examinations in 1979 were again arranged according to the experimental conditions of the previous year.

The arithmetic mean this time is 3.2; a result no one in the group has obtained! Again one might wonder whether a substantial number of students have not really started to work seriously with the task presented by the syllabus.

The development of academic skills in a short-term perspective

As I have already argued, it takes some time before the new student is able to adjust to the world of academic discourse and simply to get started with the work. If we are right in assuming that each student faces the challenges at university with his qualifications varying because of background factors, rather than due to his 'inherited abilities', we can expect that the performance of the students, after repeatedly taking part in test examinations, would

	1. Test exam		2. Test exam		3. Test exam		Final exam	
	Mark	Laud*	Mark	Laud	Mark	Laud	Mark	Laud
Group I	3.09 (N = 36)	11%	2.75 (N = 23)	26%	2.74 (N = 18)	56%	2.81 (N = 18)	6%
Group II	—	—	2.93 (N = 30)	10%	—	—	—	—
Group III	—	—	—	—	2.94 (N = 36)	31%	—	—
Group IV	—	—	—	—	—	—	2.99 (N = 72)	8%

Table 3: Results in different test examinations and in final examinations.

become more alike and at the same time show some improvement. Table 3 shows the marks for the successive test examinations and for the final examination, in different groups of students, all taking part in the experimental program in 1978, at the University of Bergen.

A few comments might be needed to explain the meaning of the figures in Table 3. Group I consists of students who took part in all three test examinations. Of the 36 students who have entered this training program, 23 came back for a second test and eighteen of these turned up on the third occasion. Groups II and III consist of students who only took part in one test examination (No. 2 and 3 respectively). Here the results of the final examination have not been calculated, since the inclusion of these groups was dictated by the need to control 'initial performance' at various points of time during the term. Group IV consists of students who did not take part in any test prior to the official examination. One ought, however, to bear in mind that the students in this group, as was the case with the others, took part in about 90% of other tuition arrangements in psychology throughout the term.

The table shows that the average result in Group I has improved from 3.09 to 2.74 from the first to the third test examination. The percentage of very good marks ('Laud') also increases from 11 to 56, which must be considered a remarkable improvement. However, whereas in the final examination the average mark is somewhat better in the first experimental group than in the control group (Group IV) (2.81 vs. 2.99, $p < 0.05$), the percentage of very good marks is again back to its point of departure (6% in Group I). We shall return to a possible explanation of this shortly. What is also worth noticing in Table 3 (read diagonally from upper left) is that the average mark of all groups — *in the first attempt* at leading an academic discussion — is strikingly similar, irrespective of the point of time during the term.

(* «Laud» is short for «laudabilis» — a mark not lower than 2.5 — often constituting an important distinction in the Norwegian system of assessment).

If, however, we consider the chances the students have of receiving a very good mark ('Laud') at the final examination, it seems that the test program has had no effect. There might be a number of different reasons for this, but when Table 3 shows that the percentage of very good performances ('Laud') increases *until* the official examination, one starts wondering whether Chairman Mao came closest to the truth when he said that 'the examination system treats the students as the enemy and attacks them by surprise'! It is important to state the fact that throughout the program of test examinations the students would know each time from which part of the syllabus to expect a question, whereas in the final examination nervousness, because of a lack of knowledge of what to prepare for, might seem unavoidable.

Motivational effects of a test examination

An opportunity to practice essay writing — whether it is called test *examination* or not — might seem a valuable means of preparing the students for a successful handling of examination challenges. One ought, however, to look into the question of possible *negative* outcomes of such a test program.

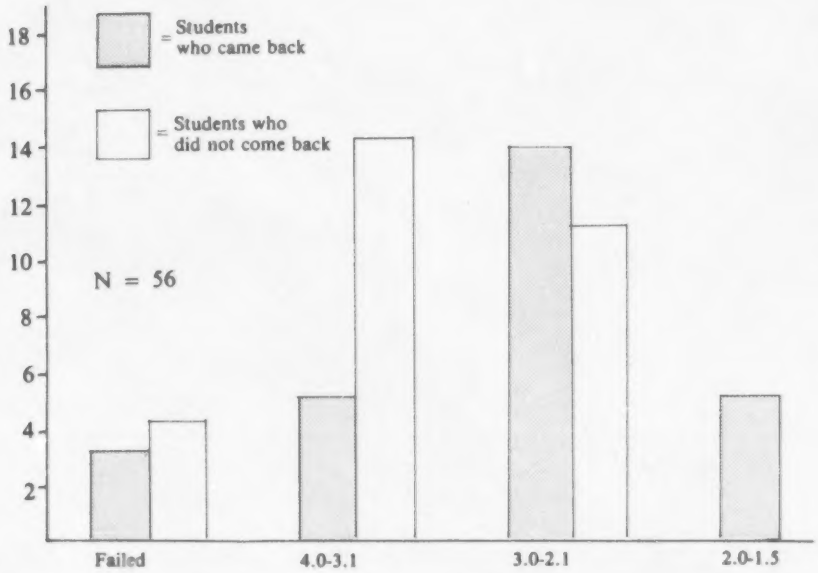

Fig. 7. Students in different performance groups and their appearance or non-appearance for another test.

What about the students who initially perform so poorly that the 'feedback' given, however kindly worded, necessarily amounts to a signal that 'this simply will not do'?

As the students in this research project had the opportunity of returning for a second test, it is possible to get some idea about this. In Figure 7, I present the results of the first test examination in 1979, in such a way as to show to what extent students with *different* results did in fact come back for a second test.

Students who were unable to pass the first test seem as likely to come back for a second attempt as they are to withdraw from further tests, whilst students with varying marks seem to follow a pattern which suggests that those with a good mark may be found again in the second and the third test. A close scrutiny of attendance records shows that, whereas the majority of students with rather low marks do not come back, *all* of the students with marks above 2.0 do in fact turn up a second (and *possibly* a third) time. Admittedly, this is nothing more than could be expected on the basis of the laws of 'positive reinforcement' or similar, differently formulated laws of learning and motivation. However, a point must not be overlooked that one can at the same time, fall into a trap of believing that such a result is of minor importance, since, after all, the good marks are attained by the 'good students', to whom a hearty welcome back might be extended anyway. The correlation between the results of the first two test examinations in 1979 is only 0.22 (non-significant). (In 1978, when a similar outcome as that of Fig. 7 was found, a correlation of 0.07 was obtained.) Three students were seen to come again, despite the fact that they did not get a 'pass' the first time — or maybe *because* of that? Their results on the second test were the more remarkable: 2.7, 2.0, and 1.8 — well above the average.

We have seen that a good result on the initial test is accompanied by a greater probability of attendance on a second test than a poor result at the start. We have also seen that the level of performance is raised with each test (Table 3). Continued participation in the test program ought therefore to mean an increase in skill — or some progress as far as learning is concerned. When, at the same time, we know that the correspondence between initial performance and later results is next to nothing, we might conclude that what the student *happens* to get out of an initial attempt, might be of great importance to his future career. We might even risk an assumption that, when we say students get good marks *because* they are academically competent, we might simply be saying that the students *become competent* (partly) because of a good mark at the start! And so, in a discussion of the use of marks in schools and university, we might argue that we ought to look for a way of getting rid of the poor marks only.

It might be objected that what we have concluded above lacks an element for controlling the possibility that we have, in fact, *two different types* of poor marks in the beginning. There might exist (a) poor marks resulting from a lack of ability, and (b) poor marks indicating that a student has not really begun seriously to read the subject. Maybe the truth is that students with the first type of result are discouraged from coming back after having tried 'their best', while students of the second category are more likely to come back for a better mark, after having put some efforts into their study. We do, in this case, have a means of checking a hypothesis in this respect.

As part of the total research program the students had been asked to take a test of verbal skill. The main purpose of this was to get some idea to what extent such a factor might be responsible for the results in a written examination exercise. This problem aside, we are now in the position of comparing the test results of the students who came back after the initial test, with the results of those who withdrew from further attempts. (The test in question was a sub-test of a Norwegian intelligence scale, found generally to have a high correlation with the full test.) The average score of the two groups is found to be exactly the same (12.3 points) This indicates that we have no reason to believe that 'gifted students' a more likely to return to take another test after a less successful beginning.

Before presenting my final points in discussing the results of the research connected with 'Examen Philosophicum', I would like to sum up what we have observed so far:

1. It has been found that a lecturer who is interested in the welfare of his students, might, by very simple means be able to create a situation whereby the students are willing to work systematically, and to attend regularly most of the lectures on an optional basis. At the same time it is clear, however, that mere attendance at lectures is not enough to lead students successfully into the world of 'academic discourse'.

2. We have seen — as has been found before — that different types of questions might present the students with very different challenges. In tasks involving factual knowledge, students are able — from the start — to obtain very good marks. The less successful results, in tasks demanding an integration of different pieces of information in a discussion of a difficult problem, are taken to indicate a lack of proper background experience rather than a lack of intellectual abilities.

3. An opportunity for the students to take part in 'test examinations' might be welcomed by the great majority. However, it seems that a number of students hesitate to really enter into the field of academic contests. It may be that their reluctance to obtain the feedback they admit they need, can be

regarded as a reflection of negative experience with various examinations in the past.

4. When students are taking part in training sessions early in their first term, their essay work seems to fall into two distinct categories. A substantial number of students have difficulties in 'getting started' in a way which would enable them to perform, initially, in accordance with their later results. We have again seen that the correlations between initial test results and later performance (e.g. at official examinations) are low and often insignificant. This point must be kept in mind in discussions of the value of some kind of 'entrance tests'.

5. We have found that when new students take part in a *series* of test examinations, their results show a marked improvement, even over a relatively short period. This type of training will not, however, automatically lead to improved results at the official final examinations. The latter task often represents a challenge of handling the *unexpected* questions, in addition to asking the students for an overview of a wider field of study.

6. Since there is a tendency for students, with initially good marks, to come back for future tests more frequently than students with low marks, and since we know that the participation in a prolonged test program might have a beneficial effect on final examination results, the motivational effects on the students of the various types of 'test programs' or exercises must be assessed before being implemented.

An exercise in prepared examinations

In the final stage of our research project at the University of Bergen, we tried to take into consideration the findings summarized above. We were particularly concerned that the results of the official examinations in previous years showed a nearly complete lack of effect of our training program, as far as the percentage of very good marks was concerned. We decided to choose the following strategy for the final test examination in the spring of 1979.

A week before the day of the test 'examination' the participants were informed of the questions they would be asked to write in the test. They were also given an additional lecture on the topic, with the instructions to try to integrate the information presented in the lecture with what could be found in the textbooks. Since an analysis of a representative number of essays from previous examinations had shown that *combining* information from various parts of the syllabus left much to be desired, the task set for the students was such as to (hopefully) give them an experience in doing just that. The question to be answered by the students was as follows:

> *'Describe the effect of motivational factors on perception, learning and thinking'.*

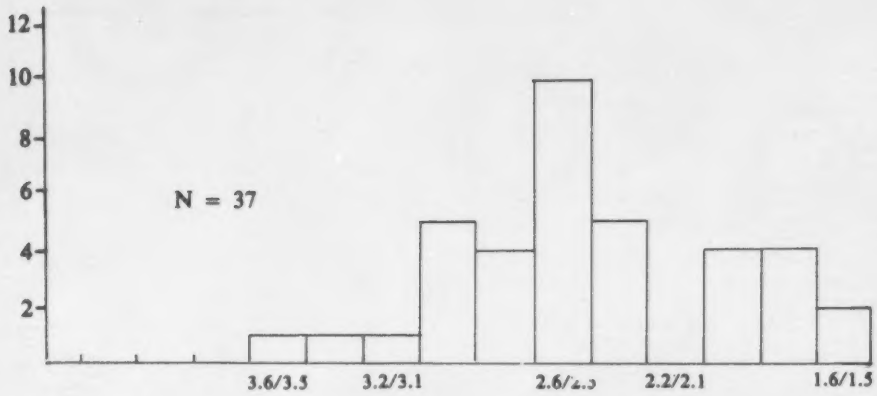

Figure 8. Distribution of marks in the second test examination 1979.

The results of the *first* test examination of 1979 were presented in Fig. 6 p.92. There the average mark was 3.2 and the percentage of 'very good marks' (laud) was 22. On the second and final test examination, arranged on the basis outlined above, we got an average mark of 2.4 (!), with 62% having very good marks. Figure 8 gives a fuller picture of the results.

The results of Fig. 8 may seem nothing more than what might be expected when the students know the question a week before the examination. But here I would like to make the following comments: in 25 years of teaching for 'Examen Philosophicum', I have shared the attitude with other university teachers that 'it takes some time' for a new student to be able to grasp the basic points of academic discourse, or to develop a proper technique for handling examination questions of various types. The actual *reading* of the essays in the case of the 1979 examination has convinced me — even more than did an inspection of the distribution of marks — that I have been wrong, all these years. Obviously the new students, having been given some information of where to look for the sources of a reasonable treatment of a difficult question, have been able to perform at a level normally attained only after a full year's study. Whether or not the strategy adopted in this exercise is regarded as a proper way of preparing students for good performance at the *official* examination, it seems clear that giving helpful advice, in the right circumstances, promotes mature ways of dealing with academic problems, even amongst beginners at university.

I have mentioned in passing that if differences in background amongst the students are regarded as partly responsible for a good start at university, one might expect a greater similarity in their later (and improved) performances. During the three test examinations in 1978 the standard deviation of the marks goes down from 0.55 to 0.25, suggesting a much closer grouping of the results. Similarly, with the two test examinations of 1979, there is a reduction from 0.92 to 0.47 (the external examiner of this year perhaps using the range of the scale of marks more fully than the one in 1978). Although it may be interpreted in more than one way, this finding is at least not inconsistent with our hypothesis.

If we now take a look at the results of the participants of the second test examination in 1979, at the official examination a few weeks later, we obtain figures as shown in Table 4. Here we have arranged for a comparison by 'matched groups', by letting the marks in another subject, logic, constitute the basis for selecting members of the control group.

		Logic		*Psychology*	
	N	*Mark*	*% Laud*	*Mark*	*% Laud*
Experimental group (took part in second test examination)	36	2.87	28	2.64	39
Control group (did not take part in second test examination)	36	2.87	28	2.91	22

Table 4. Results at the official examination — Spring 1979.

It is seen from the table that the participation in the test has had an effect, this time. The average mark in the experimental group is 2.64, as against 2.91 in the control group ($p < .01$). Also the percentage of 'very good marks' (laud) suggests that we may have good reasons to be satisfied with the final results.

A point, not to be overlooked, is that the 'training effect' has, in this case, been achieved by very simple means. A few words to the students about how to prepare for examinations, a single additional lecture, and one 90 minute session of writing an essay at the 'test examination'. The improvement found in the final marks might even be thought of as somewhat greater than is indicated by the figures. The Norwegian system of marking is, in effect, such as to make the external examiner hesitate in 'producing variation' in the middle part of the scale. In reality then, an improvement from 3.4 to 3.1, say, will be thought of as less pronounced than one from, e.g. 2.8 to 2.5.

It is my conviction that the lesson to be learned from the results presented, is not just that of the benefit of having students *prepare for* examinations by exercises similar to the one used in our research. Rather one ought to consider the advantage of letting the students, normally, get as clear an understanding as possible of what is, exactly, expected of them on the day of the final examination. Too much guesswork and the ensuing nervousness is the result of the orthodox system of presenting the secrets of the examination as questions to be handled in 'The Great Hall', *without* the natural tools used by the academics, their books. Only after the first few years of academic life is an opportunity given of systematically utilizing *all* possible ways of obtaining knowledge, e.g. when the student is working on an important thesis. Why are we then attaching so much importance to the task of finding out which student will be able to survive in an intellectual competition, where what happens to be in his mind *at the moment* is the most important factor of success?

CHAPTER VIII

Janek Wankowski

ASSISTING INDIVIDUAL STUDENTS IN STUDY DIFFICULTIES

1. The giant spring of youth

The intuitive insights of poets and artists often transcend the powers of cool reasoning and go to the heart of the matter more pertinently by evoking an image of reality through words, colours or shapes. Their concern to give meaning to a symbol does not seem swamped by fear or misjudgement by others, nor by the ardent hope of objective verifiability. They pronounce passionately, if arrogantly 'behold an image of truth', and the observer, at times, beholds what they, the artists, beheld. And if art consists of sharing in an image of truth, this is the point of fully consummated communication. But there is also another vital side to the artistic power of expression — the power to absolve the beholder from understanding the obvious and the power to forego the misjudgement of truth. The beholder does not need to feel cheated, guilty of neglect, or incapable of an interpretation. If the spark strikes some chord of truth within him he is grateful, consoled or elated, if it does not he is free to look elsewhere.

There is, in the University of Bergen, Norway, a metal sculpture of an uncoiling spring placed between the old and homely building of Geo-Physics and the sombre glass and concrete modern block of Physics. It stands low on the ground and, reaching about twenty feet high, is caught by the artist in an act of a mis-shapen twist, powerful, clumsy and steel blue as it strikes a discord between the benign and spacious imagery evoked by the word 'Geo' and the acutely disciplined vision evoked by the label 'Physics'. It may, at first sight, jar on the senses of the beholder, appearing as a giant, lost spring falling out, only too obviously, from the neat cerebral academic scheme to harmonise the image of the nurturing abundance of the earth (the Geo) with the rigorous compactness of restraint of pure scientific thought — the laser of the human intellect and the most likely, premature annihilator of our odd, life-giving solar molecule.

The tension of the giant spring not only suggests discord between the homely and the precise, the loosely coiled and the tight; it stands as an image of stresses, immanent in its concrete plinth, yet threatening to upset the forces of coercion to coil up neatly, once more, as if guided by the skilled hand of an ancient clockmaker, to fit snugly into the well-balanced and well-oiled works of the timepiece and to uncoil forcefully, but timidly and patiently within the safe, set walls of its own, or of the societal compass. Thus, from an image of discord between the concrete and exploratory and the theoretical and consolidating milieux of the neighbouring scientific fields of study we can pass to an image of stress of transition felt by young individuals when, in the spring of their youthful power, they feel consumed by a fearful urge to uncoil freely, forcefully and sometimes violently, if only for a time, to test the strength of their potential energies.

These were all aspects of importance to me the beholder when, during a visit to work with my Norwegian colleagues, my mind was groping for a central point of integration of this chapter on the individual counselling of students. For there, in a most appropriate context, the view of the giant spring clinched the matter for me. A classical instance of the brain interpreting in the direction of the wish — Pasteur's motto that 'chance favours the prepared mind' or Victor Hugo's 'you have looked for me, for you have already found me'. Here was the mainspring of my tale about ways and means of helping students to recover from the momentary break in learning prowess — the sudden submergence of their past, well proven learning competence.

I hope that the reader will not expect any tight therapeutic prescriptions for dealing with the highly idiosyncratic difficulties of their students. The yarn describing my work will be spun loosely onto the spindle of a central theme, already mentioned, that students' stresses arise from the sudden loss of learning competence on transition between two stages of formal educational experience. There will be many loose ends and entangled knots hanging freely from the loom of my narration. I am, personally, seldom worried about them and the reader 'does not need to feel cheated' or 'incapable of an interpretation'! The faults and misjudgements are entirely mine. This admission is not intended to play coy or to admit incompetence. It arises from years of experience and a clear awareness of the immense complexity of problems the students may present, and out of the legion they can pose or propose.

In order to remind ourselves of this complexity, let us consider the sheer number of possible behavioural responses shown to us by the science of neurophysiology, which also seems to warn us that, in proportion to what is known about the learning capacity of the human brain, the knowledge about the transformation of its neurological activity into relatively set patterns of

behaviour, appears almost negligible. However, from the mathematical model of possible combinations of interaction between neurons — the discretely independent cells of the nervous system — it is possible to calculate that, since a pair of neurons can produce seven modes of interactions, the interaction of the 10,000 million brain cells may result in 2 to the power of a hundred million million million such transactions (Grey Walter, 1961). Mathematically, such a number approaches infinity, but even this estimate disregards the possibilities of further interactions amongst the far more numerous lines of nerve fibres connecting the cells.(1) The mind baulks at such an immensity of behaviour possibilities. Yet, from the standpoint of evolution, only a brain with a very large capacity for modifying behaviour can guarantee survival amidst the constant challenges of the changing world. Philosophically, the enormous capacity of the brain may be regarded as the ultimate guarantee of the 'free will' of the individual, since no system of social, ideological or pedagogical coercion or manipulation can ever provide for, or prevent, a chance response! The infinite capacity of the brain ensures that man is indeterminately determined.

Yet, at the same time, an individual is also an obstinate slave to his habits of acting and thinking which, once set, provide inevitably an indelible programme for any future exploration and learning. Since no conditional response is ever erasable, the principle that 'disposition selects stimuli' obtains in any learning process, and dispositions to cope advantageously with one kind of learning milieu might not necessarily be conducive to coping in another, particularly since the most discrete aspects of learning at school and at university are vastly different. It is only to be expected that the ways of learning skills practised at school may become completely unprofitable at university. New learning to cope must take place, and this might happen against the background of obsolete or counter-productive habits.

The issue is further complicated by the fact that the time of a young individual's life assigned traditionally to the pursuit of higher education is also a time of intense moods and swings of attitudes. Most young people are affected by them, some very slightly, some moderately and some very severely. The adolescent's 'identity crisis' is lived through amidst acute conflict between 'the need for devotion' and the 'need for repudiation'. This has been so succinctly put by Erikson in his classic the 'Young Man Luther' that I quote him:

> 'In their late teens and early twenties even when there is no explicit ideological commitment or even interest, young people offer devotion to individual leaders and to teams, to strenuous activities,

1. An estimate of the number of synapses in the cortex has been put at 500,000,000,000,000 by C.U.M. Smith (Smith, 1970).

and to difficult techniques; at the same time they show a sharp and intolerant readiness to discard and disavow people (including at times themselves). This repudiation is often snobbish, fitful, perverted, or simply thoughtless. These constructive and destructive aspects of youthful energy have been and are employed in making and remaking tradition in many diverse areas.

...In search for that combination of freedom and discipline, of adventure and tradition, which suits its state, youth may exploit (and be exploited) the most varied devotions. Subjecting itself to hardship and discipline, it may seek sanctioned opportunities for spatial dispersion, follow wandering apprenticeships ... man the out-posts of new nations, fight (almost anybody's) holy wars, or test the limits of locomotive machine-power. By the same token it is ready to provide the physical power and the vociferous noise of rebellions, riots and lynchings, often knowing little and caring less for the real issues involved. On the other hand, it is most eager to adopt rules of physical restriction and of utter intellectual concentration ... Even when it is led to destroy and to repudiate without any apparent cause, as in delinquent gangs, in colonies of perverts and addicts, or in the circles of petty snobs, it rarely does so without some obedience, some solidarity, some hanging on to elusive values' (Erikson, 1959)

There can be little doubt that the swings of moods between devotion and repudiation arise from a sense of powerlessness and from the resultant anxiety. Many students become anxious and fear that they will not be able or willing to learn what they have undertaken to learn and this again has been aptly described by Erikson:

'A repudiated self in turn cannot offer loyalty. The work inhibition often connected with this picture (fatigue and lack of concentration) is really a career inhibition, in the sense that every exertion of skill or method is suspected of binding the individual to the role and status suggested by the activity; thus again any genuine moratorium is impossible. Where fragmentary identities are formed they are highly self-conscious and are immediately put to a test. This self-consciousness is a strange mixture of snobbish superiority — a conviction that one is really too good for his community... or indeed this life — and an equally deep sense of being nobody'. (Erikson, 1971).

It is against such a matrix of behavioural complexity that this introduction to the account of individual counselling is written. Is it still a wonder to the reader that I feel in need of some central point of interpretation, some

phantasy or a vision in order to produce a cohesive picture of the difficulties of students who come for help and of the ways to cope with their problems in counselling? Here then lies the values of the imagery of the giant spring at the University of Bergen. And here, apart from the image of adolescent stress on transition from school to university, lies the necessary model for my thinking about this problem; a model which must, at the same time, be held as infinitely flexible and finitely circumscribed — an answer to the challenge of feeling comfortable and at home within the paradox.

2. Theoretical standpoint: the individual as a self-teaching agent

I should like at this stage to present an outline of an unorthodox theory of learning which may be regarded as an effort on my part of standing the prevailing mode of educational thinking on its head. In addition to its strangeness, my theory may also appear to be very weak. I do not, for a moment, claim that it is right. I regard it merely as useful for my purposes of trying to conceptualize, think, speculate and reflect upon the themes of behaviour of students who come to me when they are at a standstill in academic learning. My re-structuring of the prevailing educational thinking is thus an act of personal pragmatism, derived from the sheer desperation of what to do when a hitherto efficient learner begins to lose his competence.

My experience of remedial tuition in schools and at university has taught me to regard human learning as largely an activity of self-teaching. But not only that: it is a ceaseless attempt on the part of the individual to teach others round him how to respond to his whims, fancies, wishes and needs; in a word, an effort to manipulate the world around him to his own advantage in the first place and perhaps, to the advantage of others in the second. Borrowing from Wordsworth's and Freud's precepts that 'the child is father of the man', I came to regard the individual learner as a teacher of himself and of his teachers.

The convenience of my theory becomes apparent when you reflect that whilst placing the ball of the tuition game squarely in the student's court, it leaves the teacher — the more experienced and hence the more responsible partner — still the vital member of the learning dyad. This is where, in my view, the crux of tuition rightly belongs when we consider that during the process of upbringing, the traffic of mutuality (Erikson, 1967) goes both ways from the mother (the significant figure) to the child (the pupil) and from the child to the mother; both partners of mutuality enjoying the benefits of the social transactions.

Notwithstanding the powerful coercive forces of socialization (education is an integral part of it), an individual, however helpless or humble, makes a

constant effort to mould these forces to the pattern of his own advantageous adaptation. Physical autonomy, plus an enormously richly endowed cortex, which guarantees countless possibilities of chance inferences and chance conditioning, is, in the last resort, an ultimate wall of resistance to any, even the most carefully designed, schemes of social coercion. An intrusion beyond that limit can only be achieved at the price of the individual's destruction. Education for autonomy recognizes this limit, and perceptive educators know that it is at the point of the individual's resistance that the mutuality of respect is won or lost. I learnt this lesson in the earliest days of my teaching career when I realized that when I wanted to teach some of my more reluctant pupils arithmetic or reading they, in turn, wanted to teach me to leave them absolutely alone! Having, with due respect for their autonomy, recognized this point of resistance (a point of mutual pressure) there was only one thing to do: I tried to help such pupils to learn arithmetic and reading by structuring tuition in such a way as to give them the opportunity to teach themselves. The results of adopting such an approach were usually very successful.

Another advantage of my theory — in my work as a student counsellor — is the obvious convenience of mentally turning the tables upon the student who, if feeling trapped in his commitment to academic studies, imagines that his plight, his pangs of conscience and his inner anger, are solely due to the social pressures around him. I find that sooner or later, in the progress of remedial tuition, the student himself realizes that it was also his own skill and joy in manipulating his teachers and his home environment that have contributed to his self-imprisonment within the framework of inflated scholastic competence. A discussion of the emotional concomitants of learning successes and of learning failures at school, soon leads to a reflection of how the student himself managed to teach his teachers and his parents to provide him, copiously, with the tokens of emotional support.

It is, to my mind, this currency of emotional well-being derived from pleasures of managing and of being managed which has cemented the student's learning competence in school. The whole process of teaching our 'academic elite' is also a ceaseless transaction of mutuality between teachers and pupils. Moreover, since success at this level is extraordinarily easy for both parties, it is not surprising that often both partners of this transaction push themselves, inadvertently, into the blind alleys of disenchantment when the nature of mutuality changes i.e. when, for example, the elite sixth formers meet the whiffs of cold comfort of academic freedom (freedom to fail or to succeed) at university, or when the teacher of the 'academic elite' finds himself confronted with a less amenable team of scholars when he has to take a job in a non-selective (comprehensive) school.

Theoretically, and in the light of cool cerebral expectations, the present high level of academic sophistication in the sixth forms and the skills in passing the progressively more demanding General Certificate of Education examinations should enable all, or nearly all, undergraduates entering university to cope successfully with their intended courses of study. And, even if their skills for intellectual learning need to be somewhat extended or modified, in order to fit the requirements of the new and largely different tuition at university, the task of re-orientation in study methods and learning strategies should not be too difficult. Perhaps not more difficult than switching over from driving on the left in Britain to driving on the right when travelling on the Continent — at least so it would seem.

But the facts about academic success and failure of students do not seem to confirm that all the new entrants need to do, to have a clear run through their degree course, is to take a look at the new order of things at university and to give themselves a cerebral command to switch over to a new system of academic demands. And, should this not be sufficient when things get somewhat confusing, to read a book on 'How to Study' (there are several excellent ones) and to keep close to the wise and reasonable advice of experienced academics who write these books. My own research into problems of student failure suggests, for one thing, that only 1 in 200 students ever consults such books and, for another, that those who do are temperamentally most unlikely to get easily confused or disoriented. Reading such a book is to them not unlike consulting an A.A.[1] guide before a drive through an unknown city; just another precaution so that they don't waste their time when they get there. So, in spite of pertinent and highly effective advice — once it is taken — available on bookshop shelves the chances of completing a course at university are not as good as one would have thought. At Birmingham, the overall failure rate has been about one in every ten students. Departmental and course differences in the failure rate can be very great indeed. In some departments, a failure rate may be as low as *one* in *thirty-one*, in others as high as one in five or even one in four. Incidentally, in some polytechnics known to me, the failure rate may be as high as 40 per cent! Universities and polytechnics are naturally concerned about this state of affairs and a great deal is being done to improve the rates of success for their students. Birmingham University has a variety of student welfare agencies who are offering help to all who feel the need (University of Birmingham, 1978). One of these, served by me as an educational psychologist, offers help in the area of educational problems. The Educational Counselling Unit is the

1. Automobile Association in Britain.

place where students, at all stages of study and from all courses, can seek help when they feel perturbed by study difficulties.

The word 'counselling' carries a connotation of dispensing advice and this is the last thing I would do in order to help somebody; my function is more as an assistant in studies, or a remedial teacher. An admission that learning difficulties can emerge at this level seems to reflect sadly upon the highly selective preparatory system of schooling as well as on the system of tuition in higher education. The accepted label of 'counsellor' and 'counselling' seems to be less of an irritant for administrators and teachers in schools and universities. Its inappropriateness, or ambiguity should not, however, worry anyone who feels like making use of this service. It is one of the basic principles of a 'counselling' process that it is tolerant of all apparent verbal contradictions. Helping a person to become an efficient, self-directing learner is not an exercise in dialectics. It is not words that matter in understanding the nature of disorientation, loss of confidence and the ensuing depression, but the shades of feelings of hope, fear, joy or despair which may underlie words and actions in counselling transactions.

Having accepted, and often intellectually assumed, a harsh cerebral attitude to the necessity for learning we often find it difficult to admit the connections between thinking and feeling about it. Such links must however be acknowledged as unavoidable, particularly in relation to academic studies where they tend to be eschewed. It is when the validity of these links are consciously disregarded in our thinking about thinking, that disorientation begins to plague the vital few years of our lives as students. Let us, for a moment, descend to the bases of these links.

When we reach down to the primitive roots of the needs and economics of learning they do not seem to be very much different from the needs and economics of food production — the basic stuff of life. Primitive agricultural societies do not, generally, produce a surplus unless compelled by a tyrant, or by religion. Intellectualized learning seems to me not far removed from this basic rule — the popular academic phantasy about 'learning for learning's sake' notwithstanding.

Learning at school or at university is so far removed from the ordinary joys of daily life that it can only flourish in conditions of coercion or of compelling addiction. Whether these compelling factors are felt as external agents or as a tyranny of guilt, ambition, greed, excessive curiosity, a giant inferiority complex which must be compensated by intellectualization, or by millenarian visions of a new world released from the bondage of such compulsions, it does not really matter.

An advantage of possessing some knowledge, such as a clear, extended intellectual awareness of mastery of some technical skill, will soon produce a

capital of surplus to feed the tyrant of necessity within the young human heart. But although all learning of new things proceeds from some necessity, it becomes effective and efficient only when the act of learning brings a person a step nearer to the fulfilment of some such needs. When, however, the palpable consequences of learning efforts are not readily apparent, even the most compelling tyranny of some need will begin to disappear — production of a surplus, material or intellectual, ceases quickly with a decrease of inner urgency and motivation! The bulk of the painstakingly accumulated facts becomes just a large pile of school notebooks left in the loft in the parental home. And yet — curiously enough — the scholars seldom dare to throw them away after final examinations. It seems hard for them to discard the remnants of a relationship with maths, chemistry, English, history or biology. What was it that prevented them from cutting off the umbilical cord of such a sentiment which must be kept in reserve to feed their ego? Is it a need for some proof of the tediousness of past intellectual efforts, or a hope of preserving a tangible image of a pile of knowledge before it becomes a punched card record in the U.C.C.A.(1) statistics? Or is it because the two cubic feet of school notes, left at home, still retain the warm memory traces of the deeper bonds of mutuality of learning, where words and essays, maps and diagrams, stood for people who read them, and the ticks and the crosses, and the marks out of twenty stood for smiles of approval, or frowns of benevolent correction towards the straight and narrow paths mapped out by the mammoth General Certificate of Education examination industry? I guess that most of the intellectual surplus derives from the hearth of mutuality of learning and teaching at school: as I have already mentioned, over 80 percent of students spontaneously report that their interests in subjects at school, or their aversions to them were intimately connected with their likes or dislikes of their teachers.

Motivation to produce any surplus is essentially a social phenomenon; a constant and ongoing process of regulating basic drives through the social transaction of learning and mutuality, which Erikson has summarized in one sentence: 'To get and to be a giver'. And mutuality requires significant figures (parents, teachers, friends, customers), or their object-substitutes (operational skills or subjects of study), if it is to fulfil a vital function of regulating tensions and of adapting advantageously to the contingencies of life, most of which are essentially social. Any imbalance in mutuality will be felt as a discomfort (a mental pain) which will call for some compensation in self-esteem.

1. The Universities Central Council on Admissions: a clearing bureau for regulating students' applications for places in British universities.

And the maintenance of self-esteem is a precarious process, dependent entirely on successful outcomes of meeting recurring challenges, oppositions and difficulties. It is in itself a state of pleasant tension of readiness to meet the challenge, if not to invite it. Not only to win every time, but also to learn to lose sometimes. Such opportunities to build a stronger ego have been plentiful at home and in school but they are not so easily apparent at university.

3. *Predictive prescriptions: who is likely to lose learning competence at university; reactive depression and loss of academic competence*

There is, of course, no way of predicting which individual student will fall a victim of the loss of academic competence, but a few informed guesses about general trends can be made. My investigations and counselling work in Birmingham suggest that susceptibility to high emotionality and, consequently, greater proneness to reactive depression, can be regarded as a most powerful influence associated with academic failure. How this tendency comes about and how it should be interpreted I leave to the psychological theorists and experimenters. My main concern is what to do when a person who comes to see me seems to be clearly in a state of losing his competence to keep up with his studies. And the state of such a person is so closely fitting Seligman's (1975) paradigm of helplessness that it is useful to quote him:

> 'What kind of events set off reactive depression? Failure at work and school, death of a loved one, rejection or separation from friends and loved ones, physical disease, financial problems and growing old. There are many others, but this list captures the floor.
>
> I believe that what links these experiences and lies at the heart of depression is unitary: the depressed patient believes, or has learnt that he cannot control these elements of his life that relieve suffering, bring gratification, or provide nurture — in short, he believes that he is helpless. Consider a few of the precipitating events: what is the meaning of job failure or incompetence at school (*or university* — italics mine)? Often it means that all of a person's efforts have been in vain, that his responses have failed to achieve his desire.'

Having long tried to cope daily with people, young and mature, suffering from reactive depression who come to me when they themselves seemed to have ceased to cope, I endorse Seligman's every word. But I would add a rider: 'learned helplessness' is often exacerbated, beyond belief of a casual

observer, by sheer though deeply suppressed envy that others can cope and control their way towards the achievement of their desires, whilst the helpless sufferer has lost all hope to be as successful as others whose fun, achievements, joys, thrills, goods or skills he secretly resents.

Loss of coping power, or helplessness, and the ensuing depression can be regarded as a state of paralyzing fear, not unlike that of an animal freezing when surprised by a predator which, by inducing a state of apathy, slows down the more dangerous, desperate reaction. Looked at from this angle, reactive depression is to me a safety valve, just hissing its first cloud of steam. It is, in a sense, a good thing, like the experience of physical pain, which sounds a warning bell against further damage to the organism. It must not be disregarded by those, who themselves, being at the time in a more fortunate state of not feeling helpless, may bring relief to the sufferers by helping them to regain competence to cope.

Much of the reactive depressions of the young students is just that, and their demand for being instructed (for this is what they seek in the first place) in the skills of coping with academic work is, more often than not, a demand for guidance in coping with life. This is, of course, seldom admitted even to themselves and, if it is presented through an image of helplessness in formal learning, it is far easier to accept on that plane, if only to begin with. That a recovery of competence to cope with academic work often spreads to recovery of competence in coping with other problems of life and vice versa, I have no doubt whatever. The 'transfer of training', I noticed in my earliest years of teaching even the youngest ones in schools, occurs on the level of attitude. It is really a transfer of confidence in learning: 'if I can do this, surely I can do another difficult thing'. The learning of a dead language like Latin, or ancient Greek, had this effect on generations of scholars who had to knuckle down to it under the fear of overt punishment, derision by teachers or friends or, worse still, withdrawal of esteem by the world which continued for centuries to regard it as a prestigious skill. If one could endure learning a largely useless ancient tongue, one could learn other useless things and perform useless tasks to please the world.

Success, even in a useless task — and much of the academic learning often is, or at least appears as such — is addictive in proportion to the size of an inferiority complex known now as poor self-image. And poor self-image is undoubtedly the basic component of modern neuroses developed in the pursuit of the 'jet-set'; the pursuit of academic degrees is, of course, a major part of this vogue.

An attempt to restore the lost competence of young people who fall into a state of helplessness should aim at moderating their temperamental or habitual acquisitions, but it is not an easy task. I find that the process of

untying their emotional knots, which form a part of their style of life and learning, is easiests when an approach is made from the bases of their most meaningful experiences of learning in school. Keeping to the scheme of examining and of discussing the idiosyncrasies of learning difficulties helps the client to recognize which of his learning (self-teaching) routines and procedures helped him at school and where his satisfactions lay. From this he is soon able to spot the gap in such experiences in the tuition milieux at university.

The most obvious shortcoming of university tuition is the lack of feedback from the teaching situation. This vital element of efficient learning is noticed by most students — not only by those susceptible to academic disenchantment; over 70 percent of the Birmingham Random Sample students complained that they were not satisfied with the assessment of their work in the first year of studies (Wankowski & Cox, 1973).

There can be little doubt that much of this profile of students at risk would also fit very neatly into the framework of factors comprising Eysenck's typology of emotional instability, where low self-esteem, unhappiness, anxiety, obsessiveness, lack of autonomy and guilt can be easily recognized as underlying the attitudes of a great many 'academically weak' students. Excessive extraversion, with its components of activity, sociability, risk taking, impulsiveness, expressiveness, lack of reflection and lack of responsibility also has its share in the undercurrents of these attitudes (Eysenck & Wilson, 1976). In fact the most succinct description of people who are likely to be successful, or to have difficulties in their passage through the neat and narrow strictures of academic demands has come to us from William James. The passage is as follows:

> 'Some persons are born with an inner constitution which is harmonious and well balanced from the outset. Their impulses are consistent with one another, their will follows without trouble the guidance of their intellect, their passions are not excessive and their lives are little haunted by regrets. But there are others whose existence is little more than a series of zig-zags, as now one tendency and now another gets the upper hand. Their spirit wars with their flesh, they wish for incompatibles, wayward impulses interrupt their most deliberate plans, and their lives are one long drama of repentance and effort to repair misdemeanours and mistakes'. (William James, 1890)

It is the second type who seem to fit my overall findings and impressions from years of counselling, whilst the first type fits those who are usually found amongst the great majority of the most successful students. I think that

Eysenck's experimental work on personality — particularly in the area of the temperamental characteristics derived from the orthogonal arrangement of the two personality dimensions of emotionality and extraversion — neatly confirms the acuity of William James' observation.

Having said this, I must, on the one hand, immediately make a correction for the majority of young people who are most likely to form the bulk of the distribution between these polarities, yet, on the other hand I must add that my studies of the Random Sample, controlled carefully by two entire intakes of students at Birmingham, strongly suggest that high emotionality — as measured by the psychometric tests — is associated with a high risk of ill-success in academic studies. When, for instance, in the Random Sample, the emotionality scores of students at risk (those who suffered setbacks and those who did not complete their courses) are scrutinised, 67 percent of them have above average scores on emotionality; 45 percent falling into a very high score category. Generally, emotionality appears to be a more powerful influence in shaping the styles of learning and in acquiring attitudes to tuition at school and at university than extraversion. It seems, on the one hand, to induce persistent states of uncertainty about contacts with teachers, and compulsive and ritualistic methods of formulating notes and, on the other hand, it makes for haphazard methods of study and preference for less contacts in tuition. This state of inner dissatisfaction is perhaps best illustrated by a desire to become a 'changed person' — a trait not prominent amongst stable people.

My observations and 'measurements' of level of emotionality amongst students coming for help in educational counselling also confirm my overall research findings, as seven out of every ten students tend to have higher than average emotionality scores. This trend was studied over five years and this proportion of the emotional versus the stable students in 'counselling' groups did not vary more than two or three percent.

But we must beware of inferring that emotional lability, seen as anxiety, is a largely maladaptive feature in academic education, for it has very precious advantages. If it is considered as an outcome of greater lability of the nervous system, it must be regarded as a most necessary factor in initiating and in maintaining the exploratory activities which should clearly be beneficial to academic work. Emotionally highly labile subjects are known to be poor habituators to repeated stimuli, but superior to the emotionally stable people with respect to attending and processing information (Katkin, 1975). Such a propensity, if translated into the dynamics of socialisation in a new tuition situation, would probably prevent many of the emotionally labile individuals from responding positively to the unfamiliar and hence frightening environmental pressures and conditions. It may also, by the same token, push anxious individuals towards initial alienation rather than towards acceptance

of the new tuition environment. But it must be remembered that since, figuratively speaking, their frequent 'standing on the sidelines' in the game of life sharpens their perceptual sensitivity, it can help them also to become more discriminating. Also, because alienation is always painful, some ways must be found to compensate for the discomforts of odious tensions arising from this state. The anxious individual may be amenable to sensitive and sympathetic tutorial help, particularly through the medium of some skill where he can prove his competence and raise his self-esteem. I do not wish to expand on the theme of therapeutic procedures designed to encourage the more anxious students to moderate their nervousness through an involvement in academic studies; a separate chapter should be written on this topic. Perhaps it might be just as well to bear in mind that a tendency to high nervousness may often be a spur in the 'creative malady' of outstanding people (Pickering, 1974). It is, I submit, a mark of excellence in teaching to enable students to convert their desperation into inspiration.

However useful it may appear to have a generalized theory of learning — if only a sketchy model of working theory, or of the still more generalized picture of student's susceptibilities to failure and of their prospects of success — when it comes to meeting a real person in distress in one's room much, if not most, of this theorized and over-intellectualized structure falls apart. And rightly so, if only out of respect for the numerous idiosyncrasies left out of any generalized model of behaviour and, if only out of sheer personal honesty in admitting that *individuals are never like the streamlined daleks of psychometric regressions*. There is also the unavoidable factor of time which urges us towards improvisations in the face of emergencies created by the unnecessary pressures of tight academic work schedules and the histrionics of students reacting to such departmental milieux. I am firmly of the opinion that personality tests and other psychometric tools are still far too crude to serve as tools of predictions for the purpose of dealing with problems of individual students. Having, as a consciously planned exercise of some twenty years' duration, cured myself of the phantasy of solving problems of educational selectivity by applied psychometry, I have learnt that good, perceptive teaching can more than compensate for the shortcomings and blunders of selection. But it is undoubtedly through the study and application of psychometry that I have become a more perceptive therapist and teacher. Psychometric models based on theories can be very useful, if held tentatively and flexibly.

Individuals have, as I said before, so many degrees of freedom in their manner of adaptation, in the course of manipulating the world around them to their own purpose, that it is safest to regard everyone as unique. This unique and idiosyncratic pattern of adjustment to the conditions of past and

present learning/teaching situations calls for individual treatment when students find themselves in difficulties. They must be given individual help in an atmosphere of relaxed co-operation in reviewing patterns of efficient and inefficient learning. This is particularly important in cases of severe distress when anxiety about personal and academic problems has reached a stage of severe reactive depression.

But there again, we must not forget that the milieu of tuition and learning in each department and course depends on the equally idiosyncratic fancies, habits, styles of life and 'defence mechanisms' of the tutors. It might be true that each department may tend to have its specific climate created and maintained by the personalities of tutors, who, not unlike students, tend to congregate round specific areas of academic studies. It might even be possible to assess and to describe some 'hues and colours' of such climates, but such an assessment is not likely to render any clearer picture than the usual broad spectra of other socio-metric and psychometric surveys of group phenomena (Reid, 1979). The principle of uniqueness in teaching styles and in relationship to other people applies to tutors as well as to students. And while, from departmental studies of students' personality, we can anticipate that the individual student's alienation from tutors and colleagues might follow from the mismatching of temperamental dispositions, the interpersonal and social relationships can be played differently in each department, and indeed in each course. Thus, for example, it would be entirely foolish to assume that, following the example of the chemistry department where, in the male population, the students who failed tended to be rather unlike the majority of their colleagues (Batty and Wankowski, 1974), an individual student's difficulty in his physics course may also be associated with his temperament not matching the group image of his colleagues' temperament. In fact the matter is far more complex, since actually the greatest loss of physics students, who, as an overall trend, tend to be of a melancholic disposition i.e., moody, anxious, rigid, sober, pessimistic, reserved, unsociable and quiet, occurs precisely amongst the more melancholic individuals who tend to fail at the rate of 1:7, as against the overall failure in the department of 1:12, whilst the smallest rate of failure in physics (1:38) occurs amongst the phlegmatics who tend to be passive, careful, thoughtful, peaceful, controlled, reliable, even-tempered and calm.

I call this example of advantageous adaptation by phlegmatic physicists a social psychodynamic of the 'body phlegmatic feeding on the body melancholic'. But it may not be only a phenomenon of advantageous adaptability. The art of 'taking the rough with the smooth', without undue effort or stress, may yet prove to be largely a matter of the biochemistry of

neuronal transmission. The Vicar of Bray(1) might have been a person of phlegmatic disposition.

The problems of advantageous adaptation on transition from school to university are very real. In my work as a psychologist dealing daily with students in difficulties, I seldom see stable and introverted students (phlegmatics). They can obviously find their own ways through the idiosyncratic jungle of academic demands, pressures, and expectations, through their knack, so well described by Emmanuel Kant, of 'persevering in their objectives whilst appearing to give way to others'. This facility for adaptation or the lack of it cannot, to my mind, be disregarded in thinking about who amongst students is likely to maintain, or to lose, learning competence at university.

4. Tuition and educational counselling as a help to re-establish academic competence

I should perhaps state that no extraordinary skills are needed for 'educational counselling'. I have never yet found a student who could not be successfully assisted in his difficulties by his teachers in his own area of study *provided the teachers were familiar with the basic principles of learning theories and their pedagogical application.* Since, however, a great majority of university teachers are not professionally trained in this respect, it is not surprising that they so often fail in giving effective help to students who have difficulties.

My approaches to this work are basically those of a tutor — my shortcomings are obviously those of not being versatile enough to be knowledgeable in *all* areas of university studies. A perceptive and professionally well-trained and experienced tutor in each area of study would, no doubt, be a thousand times more effective than any layman like myself — but this is another story which I do not intend to elaborate here.(2)

Assuming that an individual's learning is essentially a process of self tuition as well as that of teaching the tutors to respond to his efforts at self-teaching (to give guidance and to facilitate feedback, if not, occasionally, also some encouragement), I must now proceed to ask myself how my client arrived at the stage of learning competence at school? To answer this question I must try to build up a picture of his self-teaching habits. I do not, however, think that a very comprehensive picture of the aetiology of past competence and failure is necessary at any point of remedial tuition which takes place in counselling.

1) A fictitious figure in a popular song about the changing of allegiance during the Reformation.
2) The factor of the 'neutrality' of the counsellor, away from the departmental setting is, of course, important, but psychologically trained, sensitive and perceptive tutors could do a great deal to help students at departmental level.

The whole purpose of the exercise is to enable a student to realize that he did proceed within a certain self-structured framework and that, with a more conscious effort on his part to re-structure his self-tuition at university, his learning competence may be restored.

I find that the best way to re-construct the picture of past competence is to examine the history of schooling. I begin, usually, with the mid-school career of what was happening up to the 'O' level stage.(1) I have found that a recall of the earliest stages of schooling evokes considerable resistance, whilst recall of the sixth form experiences tends to be overdrawn with wishful thinking, fear of admitting a mistaken commitment to an area of study, and undue rationalization. My method of examining the history of schooling is based on an assessment of emotional attitudes to all subjects of study. I encourage the client to relate how he *felt* about his subjects and his experiences of learning and tuition rather than what he *thought* about these matters.

From the examination of the mid-school experiences we move to early schooling, searching for material of early pleasure, and/or evasions, linked with elements of attitudes to teachers, schools, subjects and activities. By now the resistances about 'childish' stages of learning is far less, and good ground is gained for teaching students how to label their emotional concomitants of the more advanced learning (self-tuition) in the sixth form and at the university. It is surprising how resistant some young people are to admit that they disliked certain school activities, subjects or teachers. They seem to assume that it is not 'academic cricket' to admit that they loathe many things connected with academic work.

An examination of the sixth form tuition and learning procedures is a more precise exercise. More detailed analyses of feelings and attitudes are carried out in the counselling dialogue since the areas of studies of the G.C.E. 'A' level subjects bear a more direct relationship to the university course.

Another important point of this exercise is to enable students to perceive more clearly the similarities and differences in the tuition routines in the sixth form and at the university (Taylor, Reid and Holley 1974). Allegedly, sixth form education is designed to meet the requirements of university tuition. My carefully considered view is that the incompatibilities between the two systems are so enormous as to make the problems of transition more, rather than less, difficult!

The formal scheme of assessment of the emotional attitudes to tuition experiences gives more than a picture of the areas of 'love subjects', phobias and aversions. I try to note the themes of the more pleasurable experiences of learning and feedback from tuition. I note shades of enthusiasms, hesitations,

1. General Certificate of Education, Ordinary level; this examination is usually taken in Britain at the age of sixteen.

regrets, hopes and exasperations which might have contributed to the habitual style of the individual's learning.

A great deal of material about a client's relationship with his family, siblings and friends becomes available for discussion in examining learning and tuition styles. This is extremely useful information, for many students encountering difficulties in studies suffer from painful confusion, guilt and resentment vis-à-vis their nearest and dearest. Very often their resistances to learning and tuition are either a new tack, or an extension of the 'shadow boxing' with their imaginary, or real points of pressures from home. Although these factors of inter-personal dynamics of behaviour are, at times, the prime causes of study difficulties, they do not need to be given the first role in the transaction of remedial tuition (counselling). Keeping close to the problems of academic difficulties and helping students to do something about them lets out a great deal of steam from the cauldron of adolescent resentment, self-hatred, anger and fear of commitment. A great deal of pent up aggression and, consequently guilt, can be displaced in discussing matters pertaining to difficulties of revision, or essay writing, or attitudes to departmental regulations, in the *neutral atmosphere of counselling*. Attempts to manipulate the realities of learning and re-structuring self-teaching, provide well-defined objects for displacement of frustration. Cooler re-appraisal of tuition structures in departments sets useful limits of resistance to the outside world, and strengthens the 'capricious' and often 'fragmented' ego — all within the legitimate and, on the whole, desirable framework of mastering academic work. Very often, I find, a successful re-styling of self-tuition restores confidence and moderates the more exaggerated features of the emotionally charged intra-psychic and inter-personal conflicts with family or friends.

To me, discontinuity of academic competence is essentially a syndrome of 'work neurosis'. I try to treat it as such, through the medium of work. Erik Erikson's insight into this problem is worth noting:

> 'In the treatment (educational encounter) with young people... it is impossible to ignore what they are busy doing or not doing in their Work Life or in their unofficial avocations. Probably the most neglected problem in psycho-analysis (educational psychology) is the problem of Work, in theory as well as in practice ... Decades of case histories have omitted the work histories (educational histories) of the patients (students) or have treated their occupations as a seemingly irrelevant area of life...' (paraphrasing in brackets is mine) (Erikson 1959).

This contention is shared by Anthony Ryle who also perceived the need to treat students' difficulties within the framework of their tuition and learning structures:

> 'up to now... attention has been focused upon the intra-psychic factors in the student which can interfere with his capacity to survive or to make use of the environment and opportunities provided by the university. Faced with a student in difficulty, however, it is important that one should ask not only what, in the history or personality of this student, has predisposed him to this problem but also what, in the experience offered by the university has provoked this difficulty or what might have prevented its occurrence. Questions of this sort are relevant when one is thinking about the many students who under-achieve or drop-out without the operation of major neurotic factors in their personalities, as well as when one considers those with neurotic dispositions'.
>
> (Ryle, 1972).

The main underlying principles of therapeutic procedure in individual counselling of students are very few and very simple. I regard counselling as a process of fostering relationships between two or more people in which the person who feels worthless learns to feel worthwhile. And the worthwhileness in derived usually from mastering some skill. Educational counselling aims at restoring the mastery of learning how to learn to live with oneself and others as well as of learning how to learn at university.

In order to establish new mastery, the ways of the past competence must be discerned, and present possibilities of becoming competent must be explored and the future hopes or fears of mastery or helplessness considered. What is happening, what has happened and what may or will happen, are the three questions, or themes ever present as background to the counselling transaction. The concrete task of regaining the mastery over present work and study difficulties and personal problems serves as the main operational objective and, with the returning satisfaction of being able to study effectively, to read selectively, to compose and write essays, dissertations, theses and summaries of facts and figures for examination revisions, the mood of the client turns positive in a relatively short time. True, relapses are frequent as all therapists know only too well, but these usually tend to recur with the most highly anxious individuals. But even with these, when mastery of the work at hand and catching up with the backlog begins to be more firmly established, the anxiety level tends to subside visibly. The student smokes less, drinks less, eats with pleasure, sleeps better, looks healthier and well groomed, behaves less restlessly, reduces the frequency of self-criticism or attacks on others including a decline in the sharp dislike of objects and

activities, becomes more tolerant of himself and others, shows a keener sense of humour and above all relaxes his obsessive compulsive interest in extreme views, ideologies and millenarian visions or, on the opposite scale, forgets his lack of interest in anything at all except himself. When the covert cry of 'revenge — my heart bleeds for humanity' turns into overt humanity, the complete mastery of academic tasks and of personal uncertainties also ceases to be an over-riding compulsion. Enjoyment of life, friends and skills smoothes the ruffled feathers of despair. But it all takes time! It all takes effort in the 'working through' which, in physiological terms, could be called a process of 'habituation to the unconditional stimulus of fear' – the fear of functional impotence which is mastered through an active exercise of operational potence.

I do not think I am able to summarize the principles of my counselling procedure any better. For me it works — but my description may not strike a spark of recognition and understanding in others. After all, counselling is as yet not a science, and in art, as I said in the opening of this chapter, we might agree to tolerate each others' idiosyncrasies by 'the power to absolve the beholder from understanding the obvious and the power to forego the misjudgement of truth'.

5. *Reflections and provocations: what to do when everyone is different*

'Scientia non est individuorum' yet, on the human level, it is pursued in a largely idiosyncratic way by every individual in his scientific game of life when, following the working of the brain, an individual

> 'not only reacts passively to incoming information, but creates *intentions,* forms *plans* and *programmes* of his action, inspects their performance, and *regulates* his behaviour so that it conforms to these plans and programmes; finally, he *verifies* his conscious activity, comparing the effects of his actions with the original intentions and correcting any mistakes he has made'
>
> (Luria, 1973).

Readers will readily recognise that Luria's description of the main functioning of the brain coincides with Kelly's conception of 'man, the scientist' and 'man the therapist'. Kelly's description of his work, in the 1930s as both tutor and therapist, is so very close to my so-called 'therapeutic procedure' that when I read it, in the sixties, I became highly annoyed with myself for having wasted decades of my life in developing a technique for helping incompetent learners which has, most probably, been used, consciously or intuitively, by teachers of all ages. After all one cannot do better than

follow a generalised law and pattern of the working of the human brain to study, guide and modify highly idiosyncratic individual behaviour. Here at the level of the physiological and biochemical operation of the 'working brain' the *'science'* of all that which is general to mankind meets the *'art'* of all that which is particular to the individual. What better than to quote Kelly's description as tutor-therapist when describing my belated efforts at duplicating what I have been foolish enough not to have read earlier in my laborious search for a model of remedial teaching technique:

> 'One of my tasks in the 1930's was to direct graduate studies leading to the Master's Degree. A typical afternoon might find me talking to a graduate student at one o'clock, doing all those familiar things that thesis directors have to do — encouraging the student to pin-point the issues, to observe, to become intimate with the problem, to form hypotheses either inductively or deductively, to make some preliminary test runs, to relate his data to his predictions, to control his experiments so that he will know what led to what, to generalize cautiously and to revise his thinking in the light of experience.
>
> At two o'clock I might have an appointment with a client. During this interview I would not be taking the role of the scientist but rather helping the distressed person work out some solutions to his life's problems. So what would I do? Why, I would try to get him to pin-point the issues, to observe, to become intimate with the problem, to form hypotheses, to make test runs, to relate outcomes to anticipations, to control his ventures so that he will know what led to what, to generalize cautiously and to revise his dogma in the light of experience.
>
> At three o'clock I would see a student again. Likely as not he was either dragging his feet, hoping to design some world-shaking experiment before looking at his first subject to see first-hand what he was dealing with or plunging into some massive ill-considered data-chasing expedition. So I would again try to get him to pin-point the issues, to observe open-mindedly, to become intimate with the problem, to form hypotheses — all the things that I had had to do at one o'clock.
>
> At four o'clock another client! Guess what! He would be dragging his feet, hoping to design a completely new personality before venturing his first change in behaviour or plunging into some ill-considered acting-out escapade etc. But this, of course, was not my hour for science; it was my hour for psychotherapy; it was science!' (Kelly, 1963)

Having thus corrected my own self-deception that I have ever learnt anything new which has not already been learnt and taught, or written by someone else, let me add a few reflections. I would like to call them condiments to Kelly's therapeutic diet which I find helpful in my work as tutor-counsellor.

First of all let us reflect that all students entering universities have, in the recent past, been almost perfect models of 'man the scientist', following their highly demanding academic courses at schools. For many, of course, this process of learning has been assisted by their very skilled and committed teachers — committed to get their charges through important examinations! This framework collapses at university(1) and many individuals panic into either apathy, boredom and laziness or over-empathy, or a high state of prolonged nervous over-sensitisation transformed into morbid fear and guilt (Weiner 1970). In every case of such symptoms of 'reactive depression' or 'work neuroses', it is the prolonged nervous over-excitation (over-sensitisation) which must obviously be reduced before the student is able to co-ordinate his intentions to pursue his course of study with the appropriate actions leading to the fulfilment of this plan.

To me the problem of co-ordination of mental activity, even in academic learning, does not seem at all different from the co-ordination of any other voluntary movement and action. Here all we have to do, to gain understanding and perhaps even to find a prescription to help a demoralised and disoriented person to co-ordinate his action to his purpose, is again to learn from Luria's description of the action of the working of the brain with reference to perception:

> 'perception takes place through the combined action of all three parts of the brain; the first provides the necessary cortical tone, the second carries out the analysis and synthesis of incoming information, and the third provides for necessary control searching movements which give perceptual activity its active character. The situation is similar with regard to the structure of voluntary movement and action' (Luria, 1973).

Since the manipulation of ideas consists of 'perception, voluntary movement and action' we can legitimately, I think, ask what happens if the cortical tone is so heightened by an 'incubated' (2) fear as to throw the concerted action of the nervous system 'out of gear'? When, very probably, it ceases to work rationally and beneficially in the direction of the individual's

1. Not at Oxbridge though, where the close and routine tutorship system continues and, obviously, reduces the 'drop-out' rate to a very small percentage!
2. Eysenck's recent formulation of neurosis is most helpful in thinking about procedures to moderate 'incubation of anxiety' (Eysenck, 1975).

intentions, as when the hitherto competent learner becomes 'blocked' and ceases to be competent. Obviously the most important thing to do is to try to enable such a person to become more at ease with himself and others — to lower the over-stimulated, fearful and thereby hateful responses. And how does one do it when the student needs to experience the return of competence in a relatively short period of time?

Here we must, at long last, part with the pretence of any strictly scientific methods of behaviour modification and turn to the well tried ways of the ordinary humanity of social transactions — to me, still the most potent, efficacious, and pleasant way of learning and being. (Readers with a rigorous scientific bent and seekers of formally structured therapies should, I think, stop reading here.)

The first principle of the so-called 'educational counselling' therapy is *to put the client socially and emotionally at ease.* So what do we do? We receive the student with all the usual trimmings of a pleasant social introduction: a relaxed, pleasant reception, a not too inquisitive social chat, a cup of tea or coffee, in a reasonably furnished room with a comfortable chair, coffee table and an ash tray provided. Clients usually find me working on research papers or preparing material for teaching and tutorial supervision, or reading theses or dissertations etc. — my academic difficulties and frustrations as well as my satisfactions being there to be shared by my clients, if need be. *I regard this 'academic workshop atmosphere' as a very necessary part of 'mutuality' in the learning and teaching transaction on which the counselling technique is based.*

Preliminary pleasantries over, I enquire what can I do to help? As an educational psychologist I try to see and to understand what the person expects from me. We talk about the client's immediate concerns and difficulties, switching over to any topic of conversation in order to make the interview into an ordinary social point of contact between two strangers, setting out together on the same journey in search of the lost learning competence, or the lost 'self' or 'soul'. Within this framework of sociability and mutual concern we touch on many points concerning learning difficulties, fears of incompetence or failure, fear of loneliness or misunderstanding by others, fear of everything that might be feared! But we also talk of strengths and competences, hopes and joys of living and acting — we pick up and illuminate more pointed issues of personal or academic difficulties, formulate trial procedures of work and study, compare notes on how they work, set ourselves tasks for the next meeting.

All we really do is *set out to work together,* over a period of a few sessions when the objective of our mutual concern is quite clear: we both understand that the student has a problem and that he/she understands that I have

a problem of him/her having a problem of not being able to be successful in studying, in personal happiness, in inter-personal happiness, in transcendental happiness, in happiness to enjoy life, friends, food, holidays, pastimes; flowers, books and fresh air etc.... so what do we do? We simply try to find the ways and means of developing a new style of learning how to learn the things which seem impossible to learn, and how to learn to like the things which are the common joy of mankind when the enjoyment has been soured by the sadness, anger and guilt of missing out on these legitimate joys.

This seems to me just about everything that can be said about the individual educational counselling therapy, except that we(1) do take care to check — as indeed we must — if the new styles of learning match the formal rigours of academic expectations set up by departmental tutors. The 'cure' is not a 'cure' — if the student intends to sustain the course — till he feels that he can proceed successfully under his own steam and has the results of his exams and tests to prove it!

If it comes to describing some less usual 'methods of desensitization' from the state of nervous over-stimulation which usually lies at the roots of apathy, hysterical euphoria, or desperate overacting in extramural activities, as an escape from getting on with the job of learning and facing up to the criticism of tutors or examiners, we do resort to helping the student to teach himself the normal range of relaxation techniques; the 'transcendental meditation' (shifting of attention from obnoxious thoughts to a contemplation of a mild, neutral, largely unresolvable problem such as infinity etc.); we use biofeedback and tapes, and books to train people in such techniques, we practice techniques of 'cognitive self-regulation of consciousness' and 'stress inoculation training' (Borkovec, 1976, Meichenbaum, et.al, 1975); we use books on how to study, including Tony Buzan's very helpful 'Use Your Head' and 'How to Make the Most of Your Mind' (Buzan, 1975, 1977).

But, again and again, during many years of 'remedial teaching' and 'counselling' students, I find that an occasional lunch in the staff house (the client pays for himself), when the student can meet my friends over coffee and a chat, or chat over a half-a-pint of beer in the common room bar, or an occasional coffee in the refectory, shortcuts hours spent in 'desensitization therapies' and makes for a more cheerful outlook, uplift of depression and dispersal of morbid gloom. Readers of parsimonious disposition, touchy on purse or time economies need not be alarmed — it happens rarely, 3-5 times in a session. It does take up my lunch hour, but this is freely given as it saves 3-5 hours of formal 'therapeutic' interviews!

1. The reader may, by now, have noted that the pronoun 'we' is deliberate in describing the counselling transaction.

I recall two severe cases of examination panic, both last minute referrals, whom I invited to have lunch on two occasions — each a full examination day — with some of my colleagues in the staff house; right inside the 'den of examiners'! Both managed to control their panic, both passed their exams successfully — a letter of thanks from one included a reciprocal invitation to lunch — a perfect example of a pleasant form of social learning through mutuality; the formula is, as I said before, simple enough: '*To get and to be a giver*' (Erikson, 1967). Where it obtains in a learning-cum-teaching situation the learning, which is mostly a social transaction, is efficient. Where it does not, through shyness, coldness, vain academic snobbishness or lack of concern, the formal learning is difficult, inefficient and often a hateful preoccupation. It is, of course, quite possible for a learner to establish mutuality (object relation) with a subject of study, craft or professional skill, but it is invariably a substitute for a human relationship which has arisen from some peculiar bent or disposition to form some addictive obsession. Mutuality is the basis of individuality — in learning and in life. Only in death one learns how to die alone, in life one learns how to live together!

Have I provoked the reader enough to say 'this is not counselling you are talking about'? Well, I agree, it is probably far from it, but to me it is nevertheless an activity of mutual assistance in learning a skill. For a student, it is an opportunity to learn how to learn at university; for me it is an opportunity to learn about a student's difficulties so that I can update my pedagogical skill to help another student. But, it can, of course, be considered as mere sociability, formalized by the working hours and an academic setting. Hard work, nevertheless, I reckon; but worth a try.

But still, let us not forget the symbol of the exuberance of youth captured by the giant spring in the precincts of the University of Bergen. Youth must remain untamed by coercion, however benevolent or cruel. The most we can hope for is that some can learn that their springs of exploration and action can, if need be, remain under conscious, rational control in order to adapt advantageously to living at peace with themselves and others. But the vision of ultimate personal freedom must always remain under the constraints of compromise.

> As Henry James (1964) has so brilliantly put it:
>
> 'And yet I am haunted by a vision of life in which you should have found no compromises, for they are a perversion of natures that tend only to goodness and rectitude'.

For maturity and rationality is but an art of giving in, without undue resentment of feeling a loser.

It is in this way that the poetry about the science of psychological understanding can become an art of living within a vision of a paradox where

complexity becomes simple and simplicity complex. But a tutor needs a vision to keep it steady — an anchor which intimates safety of restraint in times of storm, or a giant spring 'which intimates the discord between the homely and the precise'. And this is not because art cannot reflect the ultimate truth but because, as the recent commentary on the Foksal Gallery in Krakow insists, in art

> 'there is a necessity to maintain a permanent tentativeness, in that misgivings and doubts must be constantly cherished, and a situation provided in which it is not only possible but desirable and necessary to ask questions' (Browski, 1979).

For 'the human mind is the only agency ever devised for registering at once innumerable variables and for revealing the relations between them' (Allport, 1955).

6. An example of study assistance procedure.

1. Educational counselling and learning-through-teaching

Interest in learning how to learn is growing rapidly in education, industry and everyday life. Many people are aware that their difficulties in learning might stem from such causes as inhibitions of intellectual function due to emotional blocks, or obsolete habits of thinking and acting which handicap the enjoyment and efficiency of learning. Most people are not consciously aware how or why they learn, and the art of becoming an autonomous learner is as difficult as the art of competent living. There are, however, many techniques that can help in this process. The learning-through-teaching procedure is only one of them.

The efficacy of this procedure became apparent to me in my work as a remedial teacher. I noticed that even the most retarded, shy, apathetic and nervous children became bolder, more enterprising and perceptive when explaining something that they knew well. The obvious step was to find out if they could master new things by trying to learn about them by themselves and by explaining what they had learnt to a sympathetic listener. The method worked well, and I have since used it extensively in my teaching and counselling work, particularly with students who experience severe study difficulties.

In particular, I found that lecturettes delivered by students in counselling sessions helped them in overcoming their reluctance to study what they had hitherto regarded as a difficult subject. It seems that a student preparing a talk for an interested but non-competitive listener can relax his apprehensions and concentrate on clarifying his concepts without fear of appearing ignorant in

the face of an expert. The preparation of the lecturette enables the student to sort out his material, to classify it in order of importance, to formulate clear statements, to explain technical points, and to create simple models of presentation which should help the layman to understand such instructions. In preparing the notes for the lecturette, the student is forced to subdivide the subject matter into smaller units, and to plan the steps of the teaching process with great care, in order not to confuse the layman. This exercise gives the student an opportunity of reorganizing his own knowledge of the subject and thereby induces deeper understanding.

Further, the delivery of the lecturette provides the student with an opportunity for an active recapitulation and consolidation of his study material in a relaxed atmosphere of mutual concern. The student can afford to reflect on what he thinks and says without apprehension. It is often in such moments of relaxed reflection that the difficult points of the problems he is trying to understand become clearer. Moreover, in observing the reactions of the listener the student is provided with instantaneous feed-back on the extent to which he is making himself understood, and with a challenge of small 'learning dilemmas' when the listener asks questions and needs further explanations. Most students show great ingenuity in coping with such requests. They adapt instantaneously their ways of presentation by using simpler language or diagrams, or by giving clearer definitions.

2. Theoretical assumptions: mutuality, k.r.'s, and 'hot' and 'cold' knowledge

A formal psychological analysis of the learning-through-teaching procedure is likely to reveal principles and assertions drawn from a number of psychotherapies (see Wankowski, 1973). But for the present purpose it may suffice to remind the reader of some of the most important features of the learning process. The first amongst these is that, since teaching involves at least two people, it must be regarded as a social transaction, and that the most satisfactory social transaction is one of mutuality.

Mutuality may of course exist not only between two people, but also between the individual and an object of his physical or mental operation. The psychoanalytical concept of 'object relation', in which objects or imagery are often substitutes for interpersonal relationships, is a rich and useful area for studying the deeper layers of the learning process. For the present, however, I will focus on interpersonal mutuality.

To get and to be a giver, is not merely a description of our constant relationship with the world, but also a prescription for healthy, useful and happy living. For in this statement we discern a harmony of needs and

fulfilment, both intimately personal and intimately social. The teacher helps the pupil to get the skill or the knowledge; the pupil rewards the teacher by understanding what is being taught, and often improves the teacher's mastery of his own skill or knowledge by questioning, doubting and misunderstanding. The currency of the transaction of mutuality consists primarily of feelings, and these constitute one of the most important factors in learning.

Studies of feelings accompanying learning in general, and unsuccessful learning in particular, have indeed become my chosen path for learning about learning, and I have pursued them through the last three decades. It was from these studies that I conjectured that the social aspect was probably the most important catalyst of the learning process. It was there that, to me, the magic of learning lay. But this magic proved most elusive to analyse and to evaluate; it certainly did not lend itself easily to formal scrutiny even with the aid of an entire library of psychometric tests and procedures, however versatile, however rigorous. Yet I sensed all along that the magic of feeling was the key. I am now convinced of it. You can catch the joy of it in a fleeting glance of the learner's and the teacher's eye, in an almost imperceptible movement of some muscle in the corner of their mouths, the move of a hand, a slight lean towards one another when things go well in teaching and learning, or the sadness of it in the signs of disappointment and detachment when things do not seem to go well.

There can be little doubt that, as teachers and students, we get 'hooked' on the positive feelings exchanged in the process of mutuality in learning, no less than in any other satisfactory social transaction. When we say 'we like learning and teaching', we like just that; and when we say 'we hate it', we hate the breakdown in the transaction of mutuality. The magic then becomes a 'black magic' of aversion, apathy and depression — the negative side of all that is good, humane, compassionate, cheerful and full of hope; it also becomes the 'black magic' of despair, which swamps the minds of many students — from whom, alas, it is so tempting and so easy for tutors to avert the eye and to say, 'if they can't do it, they surely should not be here'. The satisfactions of mutuality in teaching another person are the same as those in learning together, when two people desire to pursue the same skill or knowledge: a fraternity of interest invested in the object of the study.

Yet another vital factor in learning-through-teaching is the availability of the palpable consequences of learning (Peel, 1956). The knowledge of results (the k.r.'s) are read by the 'teacher' in the copious array of signals radiated by the 'learner'. This intuitive, almost subliminal, level of communicating understanding or puzzlement is vital to efficient learning. Both the teacher and pupil sense the breakdown of communication as readily and as acutely as

they pick up the lines of common understanding. And when the involvement in the learning-through-teaching session is genuine, it is impossible to mislead, or to be misled. I tried it, as an experiment, only to be told by the clients, 'I see you don't seem to have grasped this point... let me put it to you in another way'.

Furthermore, the mutuality of learning-through-teaching and of learning together forge the elements of 'cold' knowledge into the new brand of 'hot' knowledge (Kozielecki, 1977). This distinction between the superficial, intellectual perception of the elements of information and the intimately felt inference is very useful in thinking about learning and teaching transactions. The learning theorist refers to it in terms of the relative strength of 'ego-involvement' (Allport, 1955). My experience of discussing problems of learning with my clients suggests that the terms 'hot' and 'cold' knowledge are more easily understood and acceptable by laymen.

A deep-level assimilation of knowledge is an important concomitant of the learning-through-teaching procedure. An assembly of factual information gleaned from books and lecture notes often presents an incoherent picture. It appears as loosely-knit, superficial, superfluous, or simply boring. The necessity of explaining it to another person helps integration and remembering, if only by virtue of having to make oneself clear. The information must be presented as a coherent package and delivered in the simplest terms. The commitment to an exploration of any topic for the benefit of another person becomes, moreover, a social commitment. The acuity of attention given to the topic at the time of preparation derives from an undertaking to fulfil a social contract which, though friendly and hopefully a mutually shared experience of learning, is nevertheless an obligation. Thence, I think, its edge, which, cuts a deep and not an easily erasable trace in the memory.

It goes, I hope, without saying that the atmosphere needed for reaching the deeper levels of understanding must, with a hitherto unsuccessful learner-turned-teacher, be created by a genuinely interested, non-competitive, non-authoritarian teacher, or a friend-turned-student. It should also be obvious that the role of the learner should be played by a person who is less knowledgeable, or genuinely ignorant of the subject taught by the person who acts as a teacher. An unsuccessful, frustrated and incompetent learner is usually in such a state of stress, due to an imaginary intellectual impotence, that anything or anybody presenting a perfect model of success, confidence and mastery, is likely to increase the level of his anxiety (Bandura, 1969; Morris et al., 1977). A frustrated learner, fearful and hateful of his own incompetence, can only begin to relax his apprehensions when put at ease in a genuine atmosphere of non-competitiveness. It is his own deep ('hot'

knowledge) feeling of being competent when he explains the intricacies of his chosen subject, that helps to break up the vicious circle of his 'learning neurosis'. Anything less genuine than curiosity mixed with ignorance on the part of the counsellor acting as learner tends to delay the client's recovery of his learning prowess.

3. Selection of clients, procedures, and atmosphere

Successful learning is the outcome of a highly idiosyncratic procedure, and learning-through-teaching cannot be expected to suit every student who has difficulties in academic work. Most students coming for help do not need and do not wish to try it, since most can evolve their own ways of coping with pressures of work, backlogs of essays, etc., through more stereotyped counselling. Learning-through-teaching requires an agreement to prepare and to deliver two, three or more lecturettes, and economy of time and effort — both the students' and mine — dictates that not too many clients are encouraged to try it, though almost all are told about it and are free to take it up.

Generally, it is the depressed and the disenchanted who are particularly encouraged to try it, especially those whose history of school learning suggests that they were greatly dependent on a supply of feedback (the k.r.'s), and approval from parents and teachers or important peers. Depressive states, whatever their nature and aetiology, usually have strong components of social anxieties, and even if the need for social contacts and acceptance is not the main problem, the social context of active learning seems to be beneficial in combating apathy and despair. Sharing the problems of tuition and learning is perhaps the most important factor in reducing anxiety and stress, provided the milieu of the learning-through-teaching session is not too competitive. Care must be taken not to create an atmosphere of undue criticism and of too frequent questioning.

Fostering a genuinely encouraging atmosphere in learning and teaching is a difficult art, particularly with the apathetic and the disenchanted students, and tutors-turned-learners should probably be carefully trained in suitable pedagogic methods. Immaturity in coping with human problems, impatience, and a wish to be a masterful guru or to 'cure' the student of his weakness, must not intrude into the learning-through-teaching sessions. A Freudian warning against the therapist's own complex of 'furor sanandi' is a most apt summary of a faulty approach (Glover, 1955). The counsellor, or a tutor who uses this procedure, should preferably be an amateur in the field of study in which the student has prepared the lecturette. All forms of academic snobbery — the most monstrous annihilator of the joy of learning — as well as

authoritarian attitudes and anxiety to restore the student's competence slide naturally into the background when the 'counsellor' or a tutor is ignorant in matters which the student is trying to explain in the simplest terms. Humility, laced with genuine curiosity and gentle questioning when matters are not quite understood, will then win the day in the learning-through-teaching sessions. Only a complete mastery of the teaching session — including mastery of materials and the context of the lecturette — delivered in an atmosphere of mutual concern can help a student to regain the confidence and calm required to straighten his own crooked thinking.

Several sessions, usually three to six, are needed for the feeling of confidence to be securely restored, and the 'counsellor' is advised to do a little 'homework' before each session in order to deepen his interest and to show genuine concern. Mutuality of interest and concern must also provide the prevailing theme for linking these sessions together. In my own case I try to preserve these links by setting myself a task for the next meeting: e.g. the student undertakes to prepare a further talk on quantum mechanics, and I undertake to read a chapter on it in Asimov's Guide to Science; or the student prepares a translation in Russian, and I go over the BBC tape or Svidaniye v. Moskvye to brush up my Russian; or a student agrees to prepare a talk on thermodynamics, and I agree to read it up in an elementary physics textbook. Sometimes I participate as a learner in no less than three or four different areas of studies in a day! This is where most of the time and energy go in applying learning-through-teaching.

The method can have many variants. It can take place between pairs of students, or in very small groups of willing participants. The delivery of lecturettes can be shared between two or more students, each one illuminating different aspects of the common problem which tends to present particular difficulty. Students' self-help in organizing such talks and lecturettes, particularly in areas poorly taught by teachers, is another obvious development which could be tried.

A further criterion for selecting students for the learning-through-teaching procedure is their ease or difficulty in communicating with other people. Some students seem to excel in discussions, and to gain insights and understanding through verbal communication. It is in conversation that their thinking is clearest, sharpest and confidently expansive as well as cautiously critical. Others, frequently those in pure sciences, are at their best when reasoning and communicating through numbers, formulae, graphs and tabulations. The verbally fluent ones often suffer from fear of committing themselves to writing, note making and summarizing; whilst the verbally shy suffer pangs of emotional blockage when they have to explain their work, or to discuss their learning problems. Students who excel in verbal

communication often tend to be easily bored and frustrated while learning from reading; they get easily confused and cannot gather up their scraps of knowledge into a meaningful passage of notes or reflections. The word-shy may learn readily from reading, can summarize and make pertinent notes, but may be reluctant to write a plain language essay or a comprehensive laboratory report.

The learning-through-teaching procedure can be very helpful to both these extreme types of disenchanted learners. The euphoric verbalisers must knuckle down to reading relevant literature and notes whilst preparing the lecturette. The main benefit here comes from planning their talk. It seems that by sharpening the outlines of the topic at hand they obtain a clearer picture of what they could not grasp, or where they had gaps in understanding. The word-shy, having meticulously prepared their material, can expand on the topic freely in delivering the lecturette. They visibly enjoy the opportunity of talking about the intricacies of their subject, delight in making themselves explicit, and often readily agree with the truth of the old adage: 'When matters we foreknow, the words easily flow'. Thus the same procedure of helping the distressed and disheartened students to learn how to learn may serve to alleviate a variety of intellectual difficulties and emotional afflictions.

4. Tape-recording as an aid in learning-through-teaching

Although the learning-through-teaching sessions provide the student-turned-teacher with immediate feedback (k.r.'s), it does not provide him with the assurance that what he says is right. The ignorance of the layman, though helpful in creating a genuinely non-competitive atmosphere, creates also an obstacle, by not providing expert confirmation or criticism of the student's understanding. These important features of the learning process can, however, be built into the session by tape-recording the lecturette. The student, playing back the recorded talk in the privacy of his room, can check it with the sources of his information and assess to what extent he is satisfied with his treatment of the topic. Most find that listening to their own talk helps them in discerning their weak points as well as in confirming the strong ones.

Tape recording can also be used to help students suffering from a 'writing block' who are unable to write essays, or lab reports, in spite of working hard in preparing material and data. This is a very common and crippling disability, but like most study difficulties it is 'curable', provided the client is encouraged to get down to practical means of combating procrastination rituals which prolong apathy and fear of commitment to writing. The student is encouraged to talk freely and without too much reflection about the essay or the report he has to do. He can just ramble on about what he has read or has thought about his reading on the subject, what he has not read or thinks

he ought to, etc. The taped discussion around the subject of the intended written work is used by the student as a background for the essay. Here again the easing of the tensions of the blocked, petrified mind may be attributed to the catalytic function of mutuality, so essential to creative production. A trace of it can be met in Joseph Conrad's admission to Ford Madox Heuffer: 'It is a fact I work better in your home, in touch with your sympathy' (Meyer, 1967).

5. Conclusions

All knowledge and all skills are meaningful only as part of the mastery of living. They take root and grow, as it were, in three phases, distinct to a discerning eye and yet occurring almost simultaneously; perception through the senses, internalisation through neurological activity, and assimilation through externalisation in action. If these phases do not for some reason occur, the knowledge may be eschewed and the skill atrophied. Ineffective, unimaginative and passive attempts at learning — particularly academic learning which appears, for the most part, alien to everything that is overtly useful, applicable and actively enjoyed — must lead to boredom and frustration. All teaching of a similarly ineffective and boring nature must contribute to further alienation from studies. Learning-through-teaching ensures that all these essential phases occur, and that they occur twice over for every lecturette. They are all present in the active preparation for teaching the topic to a layman, when the model of the intended exposition must be clear and well exercised in the student's mind. They occur again with all the accompanying satisfactions, in a masterful exposition delivered for the benefit of the listener.

But the secret of restored competence lies largely in the feeling of mutuality in the social transaction of learning. Its efficacy may also be regarded as being due to the operation of the principle of 'reciprocal inhibition' that:

> 'if a response incompatible with anxiety can be made to occur in the presence of anxiety evoking stimuli, it will weaken the bond between these stimuli and the anxiety responses'
>
> (Ban, 1966).

The tutor-turned-student is of course the main factor in producing this 'incompatibility'. Formal psychological theories and principles are often confirmations of common sense (Wankowski, 1979a).

CHAPTER IX

Janek Wankowski

LEARNING HOW TO LEARN AT UNIVERSITY: THE CASE FOR AN EXPERIMENTAL STUDY ASSISTANCE SERVICE AND ECONOMIES OF EDUCATIONAL COUNSELLING

1. Reducing wastage and attrition at University

Three inferences can be drawn from the last decade of studies of problems related to success and failure of students in universities. The first is that no further improvement in the success rate is likely to be brought about by more streamlined selection of students (Choppin et al., 1973). The second is that an improvement in tuition methods might bring about some decrease in the wastage rates which, in many areas of study, are still very considerable (Wankowski, 1972). And the third is that study methods might be very important in determining success and failure (Entwistle and Percy, 1974).

Increased skill in tuition is not likely to be brought about by appealing to teachers to take up training in teaching. Since the important long-range criteria for academic promotion and progress are the number and the quality of scholarly publications, any serious effort on the part of a new member of staff to concern himself with tuition could be counter-productive to his academic career. In every department, however, there is a nucleus of teachers who enjoy their teaching duties and who would like to develop their skills in this area. An appeal could be made to them by involving them in research into the problems they encounter in teaching. Since research is a prime tool of academic competence, an appeal or stimulation of interest through their already established operational skills is more likely to draw university teachers towards serious concern for educational problems than are lectures, talks, professional literature or reports. Interest is aroused much more effectively through active, personal involvement.

But whilst studies and surveys of learning styles will undoubtedly be valuable in educational strategies for the future, a more immediate way must be found to enable students themselves to become more perceptive of what

can happen to them when the need for readjusting their learning styles at university becomes pressing. This awareness must take place before they become swamped by apprehension, aversion and a sense of lost competence. The problems of study habits should, of course, be brought to students' notice before they enter university, but provision must also be made at university to help students explore their learning problems with greater ease and in much greater numbers than hitherto. At present, consultations about these matters may take place in the context of educational counselling, but they are usually much too late to have a prophylactic effect. There is therefore an urgent need to establish, within the university, facilities for students to learn how to learn before they become disorientated.

There are, to my knowledge, several universities and polytechnics in Britain where counselling services are giving help in the areas of study techniques. Indeed, from my contacts with colleagues who are counsellors, it seems that students come asking for such help more frequently than hitherto. It might be that the reasons for approaching welfare services may undergo some change and may even become a new vogue for seeking pedagogical assistance which, though less dramatic than a referral for anxiety depression, might, nevertheless, be more directly efficacious to the main purpose of study at the university. But the object of effective study assistance services must not only be to provide 'crisis counselling', but to embark upon a new educational venture, to enable students to become efficient self-teaching agents.

Increased skill in self-tuition amongst students will not, however, come about simply by lecturing and freshers conferences, but by creating means for active experimentation under the guidance of competent staff. For this purpose a new kind of centre would be needed, which should be supported over a considerable period of time in order to establish new trends of thinking about tuition problems amongst students who suffer setbacks and disorientation. An established centre for practical exploration of tuition and study problems might also change the still prevailing beliefs that learning skill is possessed by the few and acquired once and for all.

A central educational facility for students who wished to improve their study techniques, which would also encourage university departments to experiment with methods of tuition, would require substantial funds. But the outlay for such a service should be set against the potential gains in teaching efficiency in the university, and also against the present costs of wastage of students (Malleson, 1972). The present rate of attrition amongst students could almost certainly be reduced by helping the students themselves to become more aware of the need for a more rational approach to study methods.

2. *Study methods in the sixth form and at university*

The majority of students who suffer setbacks and difficulties early in their university career suffer from the basic syndrome of lost learning competence (Wankowski, 1973a). Much of this, as I said before, is due to a misguided reliance on the styles and habits of learning acquired in the school situation and perpetuated, with little success, in a completely different tuition milieu at university. One has only to consider, as an example, a sixth-form pupil full of confidence in his learning prowess, pursuing successfully three severely-structured, carefully-tutored and examination-oriented science subjects in a closely supervised atmosphere of daily guidance and stimulation by some three or four teachers, suddenly having to cope with a largely unstructured (in terms of objectives and feedback), fast-expository tuition at university in no less than nine or ten areas of some applied science course, taught by many highly expert and seemingly remote specialists (Wankowski, 1969). Only the most confident and temperamentally robust are likely to be unperturbed by such changed circumstances. Most will suffer from an initial disorientation, some very severely; some will readjust their work styles and survive; many, however, will not be able to correct their basic misconceptions about tuition and learning at university. Many students (perhaps as many as 70%) entering universities are simply unaware how much the hidden supports of school and home routines have contributed to their learning competence in the sixth form and how much they will miss them at university.

As I have also said in Chapter II, one way of reducing these difficulties would be to prepare students in sixth forms for the less 'teacher-dependent' style of study at university. Similarly, in order to shock-absorb the process of transition from school to university, the first-year tuition at university could be adapted to maintain, at least for some time, some of the tuition framework of sixth forms. But such proposals will not, for a long time, have sufficient impact to shift the present, deeply institutionalised, habits of thinking either in the schools or in the universities. The attitudes of sixth-form teachers and of university tutors are so discrepant that they are unlikely to be easily reconciled by reports from researchers. Moreover, these 'contrary motivations' of teachers at the consecutive levels of education (Wankowski, 1973a) are supported by different institutional objectives which will continue to militate against efforts to ease the problems of transition. As long as these basic realities of institutionalised thinking maintain their respective images — the universities as largely 'research institutes with students' (Lewis, 1962), and the sixth forms as largely training institutions for the highly competitive entry to universities — the point of transition will tend to become a pitfall between artificially inflated and inadvertently deflated expectations of learning

competence for many thousands of higher education aspirants. In this situation support services are of crucial importance. In many universities the welfare services do indeed strive generously to reduce the influence of various factors contributing to the difficulties of transition. The medical, psychiatric and psychological provisions of health centres are in great demand from individual students; so are those of counselling services, careers services, financial welfare and lodgings services, as well as the chaplaincies. Halls of residence wardens, members of academic staff, personal tutors, personal friends, and emergency 'niteline' facilities also provide a supportive system of considerable importance. If, however, students are to be helped to survive the transition and enabled to change from *tuition controls from without* (on which they depended in school) to *tuition controls from within* (which they must possess at university), a system of skilled educational counselling is necessary as an additional supportive feature of university welfare.

3. Acquiring learning skills

Universities, as educational institutions, share both the well-intentioned objectives and the unintentional concomitants common to all other institutions be they religious, political, military, commercial or welfare. All institutions are originally intended as frameworks of service which should enable their members to become self-directing agents with reference to their particular goals. But most institutions tend to corrupt either by enslavement, or by neglect and certainly by creeping bureaucratisation, which strangles all new venture and saps the life of an initially healthy tree, like the ivy enveloping an oak. They either become too directive in the sense that they detract from the individual's strength to conduct his own affairs, or too neglectful in the sense that they do not contribute enough to the strengthening of the individual's ego.

This syndrome of institutional malady is endemic and, as such, incurable. The most one can do is to help an individual become aware of how things may turn out when he becomes a member of an institution; and once he is in, to help him enhance his competence in becoming a self-directing agent. But this latter is no easy task. Balancing the external and internal pressures in order to help an individual establish 'controls from within' is, even in matters of formal studies, an arduous process. It requires not periodic exhortation through largely passive lectures but rather encouragement and opportunities for constant practice in overcoming difficulties in an atmosphere of active learning.

The most common task in educational counselling at university is to help the student to unlearn his largely subconscious expectation of constant

support from a highly structured tuition system. Many clients find themselves transported without a break and often without warning from the friendly enslavement by structured tuition in the sixth form to the cold desolation of 'academic freedom' of learning at university. They need to be able to examine their problems in the light of psychological knowledge of such elements in learning as the importance of interests and motivation; the need for awareness of learning and tuition objectives; the evaluation of tuition demands and examination pressures; the problem of reinforcements and feedback as vital components of learning and study methods; the allocation of time for study and leisure pursuits; the use of the library and the skills of selective reading and note-making; the activation of study routines; and the combating of apathy, boredom and procrastination in areas of study which arouse aversion and fear of failure.

4. An educational service for learning how to learn

Basically, the reason for a service for learning how to learn at university is identical to the *raison d'etre* for any educational institution where people come together to learn from one another. This purpose can perhaps be best expressed in the words of Dobrowolski (1958) that the only reason for formal education is to enable those who have received it to do without it henceforth. Earlier universities had this sound pragmatic social purpose clearly in mind. The mastery of philosophy was undoubtedly considered as equivalent to the mastery of the art of learning to become discerning, objective and therefore wise (Rashdall, 1942). Today this purpose is still with us, and university education should foster independence of judgement and independence in organizing one's own work as a student.

In a centre offering such a service, all the standard components of educational counselling and of remedial tuition would be made available to all students as a matter of normal academic procedure; experienced remedial teachers/counsellors; versatile teaching aids and materials including a range of textbooks, films and tapes; diagnostic and attainment tests; course programmes and examination papers; biofeedback equipment for teaching relaxation; as well as standard educational technology apparatus. Visits to the centre would be encouraged not only when students had reached a nadir of despondency but whenever they felt curious or interested in understanding their study difficulties.

The first important feature of this service would be the constant availability of competent staff who would assist a student quickly to diagnose his difficulties and to develop ways of organizing his own learning with the aid of readily available resources. These must include technical help in the use of

materials and equipment. If the aim of the centre is also to encourage university teachers in experimentation and research in tuition, the staff should be competent to assist in experimental design and in data processing.

The second important feature of the service would be to provide a recognized point of reference which could help a person to label his disability. At present, much of the distress caused by learning difficulties is presented as a physical or a psychological symptom, as a dislike of accommodation, peers and teachers, or as a fear and uncertainty about a career. A self-help study assistance service would provide another landmark for clearer conceptualisation about difficulties in academic life. Perhaps it would be easier for many more students to admit that their depressions, worries and psychosomatic symptoms might, after all, stem from their fear that they do not know how to organize their learning in the new milieu of tuition comprising several more subjects than their former three; or how to stay awake whilst listening to a series of one-hour orations (lectures), to which they may not have been accustomed (Truscott, 1964); or even how to read ten books in five weeks after reading no more than the precious few set for the General Certificate of Education Examinations. The very presence of an organization which helps with learning problems could lift the gloom of apprehension from the minds of many students, whose dismay at the sudden change in the tuition milieu is only too well known to perceptive university teachers and counsellors (Lewis, 1974).

An estimate of staffing for a centre of this kind at a civic university would be at least two teachers/counsellors, one research associate, one data processing and clerical assistant, and one secretary. A technician should be available for educational technology equipment. The centre would need to co-operate closely with other welfare services but maintaining some independence from them might help it to remain close to the most central university activities of teaching and research. By dealing with concrete educational problems, the centre would indeed contribute to the accumulation of experience and skill in the important area of the higher education pedagogics; although its purpose should be unashamedly pragmatic, the fruits of its work would provide a basis for further theoretical considerations of how and why people learn.

It should not be inferred from all this that the work of the centre would seek to undermine the pedagogical activities of tutors in departments. There can be very little doubt that the most appropriate place for students to learn how to learn is their own department in which they pursue their courses of study. The expert's 'know-how' is there, as well as the resources for self-tuition. Unfortunately, at present, departmental tutors are seldom expert in 'trouble-shooting' in the area of study difficulties. A centre for learning how to learn

could help them to acquire these skills, as well as supporting them by providing a *neutral setting* where students would be free to explore their study problems; these are often of an elementary nature and, as such, can be a source of embarrassment in the face of high-powered experts (Wankowski, 1977).

5. *The under-currents of compassion and economics in students welfare*

In spite of the widespread practice of counselling in universities both here and in the United States, there do not seem to be any 'hard facts' to indicate the efficacy, or otherwise, of this extensive and seemingly expensive welfare activity. The difficulty lies mainly in finding criteria of the efficacy of counselling and in controlling experiments and procedures involved in the therapeutic work. Of course, the arguments presented in discussing counselling in academic circles are not solely about objectivity in evaluation. There can be very little doubt that, like most crucial educational issues, the theme of counselling stirs up the deep antagonism between the emotionally-coloured social attitudes of tough conservatism and tender radicalism. But it is nevertheless true that lack of objective data contributes substantially to the polarisation of attitudes amongst those taking part in the debate. Where hard evidence is absent people are more than ever likely to fall back on their prejudices.

Student welfare services tend to be regarded as largely compassionate activities and arrangements belonging to the area of 'pastoral care' which is seen as a mere appendage to the main academic preoccupations of the university community of scholars, young and old, and of their supportive frameworks manned by administrators. At most, student counselling services are considered as safety nets around the arenas of academic mindstretching gymnastics; at least, they are considered as vestiges of the benevolent reverberations of compassion still lingering amongst the guilt-prone, late-middle-aged intellectual intelligentsia — an extension of the post-war welfare state. Perceptive cynics and students of the history of education might quietly add another dimension to the springs of motivations for provision of counselling in universities which sprouted out, here and there, during the bounteous sixties. They will point out that the sudden expansion of higher education, in Britain and on the continent, was spurred, like most educational reforms, by the fear of technological decline and military eclipse — this time by the post-sputnik panic. When 'the Russians have done it first!' became the modern equivalent of the Romans' 'Hannibal ante portas', the governments found money to expand higher education and to arrest student wastage.

It may seem superfluous to bring in generalisations about the effects of collective social attitudes and motivations here, but the fact is that universities, for all their alleged academic freedom, depend heavily on the goodwill of governments, and governmental bureaucracies respond only to the threats of national emergencies and international cataclysms. Economic stringencies demanded from universities must be taken seriously, and it is only natural that the first skirmishes in academic committees will be about the most loosely-integrated fringe activities of welfare services to students. The financial battles between the more firmly-established faculty structures are yet to be fought. Meanwhile, the welfare services must take the brunt of the initial cross-fire.

How can the welfare services find hard economic ammunition to use in self-defence in these skirmishes, over and above the mere threat of loss of morale when the students' welfare 'comforts' fall below the comfort line? How can welfare activities in general, and counselling activities in particular, be shown to be relevant to the purely economic advantage of hard-pressed institutions of higher education? The answer to these questions lies in the assumptions that students are an economic asset to these institutions, and that students' survival through their courses of study is of major financial benefit to the universities. It is in this purely pragmatic way that I shall try to argue the case for the expansion rather than curtailment of student welfare services. I will, however, confine myself to a small sector of this welfare activity, for which I now possess some carefully collected data.

6. The difficulties of evaluation

How expensive and how efficacious, in terms of the brutal facts of economic input and graduate output, is the process of restoring self-respect through educational counselling in a large university? The main problem in attempting to answer this question is finding criteria of efficacy which are hard enough to be credible, and yet are also adequate in terms of reflecting the aims and processes of counselling which goes on alongside the normal tuition programme of every client. For instance, the fact that a student withdraws from university after counselling is not necessarily a mark of inefficiency in the counselling service, since the student may now be more able to cope with his sense of failure. This argument does not, however, make much impression on tough-minded academics taking the masculine, didactic and eliminative educational standpoint that student casualties prove the high quality of the courses which they have failed. The only argument that can convince such people that this may not be so is one which implies their own, or the national loss in terms of prestigious technological and academic qualifications. Even

here, though, the only way that the efficacy of the counselling can be evolved in a controlled way is to refuse help to every other distressed individual student asking for assistance, and then to compare the academic success of those 'treated' with those who were turned away. This might satisfy the tough-minded educational attitude of some people, but would be an anathema to most practising counsellors and tutors.

Bearing these caveats in mind, the data available for the combined educational and psychological counselling service in Birmingham would seem to be worth reporting, including as they do criteria of academic success gleaned from counselling data and university records, and incorporating some control effects as a result of the unique position of the service within the university and its modest original brief 'to give unobtrusive help to any student who encounters difficulties'. 'Counselling' in those days (1964) was largely a taboo word in universities, and the term 'unobtrusive' speaks volumes about the contemporary ambivalence amongst academics concerning counselling!

In practice, however, the brief of unobtrusiveness has not been difficult to fulfil. My counselling work has generally retained a very low profile since it was only one of the three heavy assignments of my lecturer's post. It was also of low therapeutic prestige because, as a psychologist working outside the formal orbits of the university departments of psychology and medicine, I had no share in the tradition of the medical and psychiatric help offered to students for decades before my appointment.([1]) Nor did my position as an educational psychologist carry any professional prestige. An educational psychologist's work image is one of testing delinquent, backward or handicapped children, and the supposition that student difficulties might be related to educational factors was largely inadmissible in academic circles. Accordingly, educational counselling has been and continues to be largely 'the end of the road' in student welfare.

The fact that the services of educational counselling are still regarded by many of my colleagues as mainly a consolation exercise is illustrated by an incident some years ago when a grateful, if somewhat puzzled, tutor thanked me for helping four students in his department, saying that they had all passed their exams; he added, however, that he and his colleagues were not sure this was a good thing! I was highly amused: I said jokingly that I was terribly sorry that such a thing had happened, and asked what I should do in future. It was obvious from his explanation that students were referred mainly for me to console them in some way.

1. These medical services have, of course, been of most valuable assistance in my counselling work and I have always fully co-operated with them. Some 10-15% of the students who come for counselling are known to me as having been, or as still being, under medical care when they come.

The 'end-of-the-road' character of the service is accentuated by the fact that students in Britain generally seek psychological help as the very last resort. This reluctance does not seem to have diminished over the years. It may tend to be lessened when the psychological help is available in the university health centre, in which case a doctor's advice to the student to see the resident psychologist becomes part and parcel of the medical treatment,(1) but it remains very strong when a student is not under medical care. Students' frequent insistence on strict confidentiality of treatment is also another indicator of this natural reluctance to seek psychological help. It is through this 'end-of-the-road' feature that some measure of control can be claimed to be present when the statistical account of educational counselling is given later in this chapter.

A few words must be said about the possibility of 'spontaneous remission' which is always considered as an important factor in evaluating the effects of therapies (Eysenck, 1965). Educational counselling is not aimed mainly at the alleviation of neurotic miseries and depressions arising from the personal problems that plague adolescents. The main aim is to alleviate the effects of the 'work neurosis' in the area of study — efficiency in study being one of the main reasons for coming to university. Thus the main objectives of counselling intervention are to help students to re-establish competence in learning to read, to think and to study effectively, to write adequate essays and theses, to prepare for and to pass examinations and periodic tests, and to manage their studies through self-directed learning procedures which are suitably adjusted to the idiosyncratic academic demands of their respective tutors, to the nature of tutorial milieux in their departments, and to the contents of their courses. Educational counselling is thus essentially a tuition process whereby the student is helped to learn new ways of coping with academic work.

Accordingly, problems of 'spontaneous remission' of a student's 'reactive work neurosis' do not strictly speaking arise, since in the majority of cases, the client learns (or is taught) a new style of academic functioning. Alleviation of academic difficulties — even if they are considered as 'work neurosis' — is not so much a question of remitting existing miseries (mental pains) through empathy or even through enabling a person to understand the roots of his pains, but a commitment to new styles of study which will help him to tolerate hardships, and to master tasks and obstacles that hitherto seemed intolerable.

This combined tutorial-cum-psychological help is offered to a student at a time when the tuition system, as well as the so-called 'pastoral care' in his department, cannot provide him with any more assistance. If such assistance

1. My colleague, a full-time clinical psychologist in the health centre, sees some 400 referrals per university session, against my educational counselling part-time service catering for an average of 100.

could be given, the student would not be referred to the educational counselling service, nor would he, very likely, refer himself. Studies at Birmingham show that a student's first point of call for help is, in the majority of cases, his tutor's room, the next one the health centre, with educational counselling taking (understandably so) the lowest priority in the welfare round (Bevan-Jones, 1974). The possibility of 'spontaneous remission' can, in these circumstances, be considered *only* in the sense in which the 'mental pain' of an athlete, who could not stand up to the pace of the race, vanishes after intensive coaching in a more appropriate technique, when he can at last succeed in keeping up with other competitors. It is impossible to experience a remission of bitter feelings and depression arising from a lack of adequate skill in art, craft, journalism, surgery or anything else, except by improving one's skill through more learning and training. It is the same with the skill to sustain progress in academic work. Educational 'strengthening of the ego' is, basically, a 'spin-off' effect, and the fact that it might be of considerable benefit to the individual student is quite another matter.

7. The work of the unit and its cost-effectiveness

The University of Birmingham Educational Survey and Counselling Unit was set up in 1964 in response to the Robbins Committee's (1963) recommendations that 'it should be an essential part of the responsibility of any university department towards its students to investigate this problem (wastage) carefully, both in regard to the general level of wastage over a period of years and in regard to the individual students who fail in any given year to complete a course successfully. Such a full and continuous inquiry, as a part of the university's proper concern for the progress of all students, can scarcely fail to yield clues as to the kind of action that would reduce wastage substantially'

The Unit consists in effect of half an educational psychologist plus 1¾ clerical, reception and data processing assistants. The overall annual cost (1977 rates) is thus approximately £10,000, which is remarkably low in relation to the amount and quality of educational activity generated by the unit since its inception. For example, the research undertaken by the unit has been substantial, and its papers, reports and publications have been sold world wide at cost price to well over 1,000 institutions of higher education. External comments on this aspect of the unit's work have been favourable (see e.g. Malleson, 1972; Eysenck, 1975; Entwistle and Wilson, 1977; Susulowska and Necki, 1977).

Table 1: Subsequent progress of undergraduates and postgraduates in educational counselling.

	n	%
Qualified	313	51.9
Passed in part	2	0.3
Repeating	2	0.3
Current students	26	4.4
Transferred to another University or course	11	1.8
Died	1	0.1
Withdrawals	244	40.5
Awaiting information from faculties	4	0.7
	603	*100.0*

Equally important, however, is the individual counselling work of the unit, which was intensified towards the end of the sixties. By October 1975 the unit had seen 603 student clients including 200 women (33%) and 403 men (67%); 32 (5%) of these were postgraduates. Data on the subsequent progress of these students are presented in Table 1. If an estimate of 'success/failure' of the 'rescue operation' is made on the basis of the ratio of 'qualified' to 'withdrawals', the proportions are 56%:44%. In other words, nearly 6 students in every 10 attending educational counselling are 'rescued'.

If a similar estimate is made for each faculty, the proportion of 'saved' students is higher in medicine (75%), in science (61%) and in arts and law (56%), slightly lower in commerce (53%), and much lower in dentistry (27%). The disproportionately low 'recovery' rate amongst dental students is due to specific circumstances. The dental school is far away from the main campus, and referral from it to educational counselling has nearly always (in well over 90% of cases) been mainly a 'consolation' visit — 'What can this student do next? Can you help him in any way?'

If, out of an average referral of 100 students per session 60 can be 'rescued' in their first year, the saving to the state for students on three-year courses, at an average cost per undergraduate per session of £1,464 (at 1976 costs), would be of the order of £263,520. In addition, there is a direct saving to the university of lost tuition fees — £542 per undergraduate per session and £792 per postgraduate. Since students who are 'rescued' generally continue to pursue their courses for a further one or two or even more years, the

university thereby gains a considerable sum of money. For instance, if 60 'rescued' undergraduates each pursued just another year,(1) this would assure the university of an income of £32,520, at a cost of £10,000 in the year of the 'rescue operation'.(2)

Thus an overall 'recovery rate' of nearly 60% from the point of near academic collapse, or from the point of near departure from university — since a great majority of my clients are in these circumstances — must be regarded as an encouraging sign of the efficacy and cost-effectiveness of educational counselling. Malleson (1972), after a careful inquiry into the costs of counselling, remarked that 'even prolonged psychological counselling for a troubled student is unlikely, when costed out, to come to more than £100 during his entire course; and this is but a tiny proportion of the total cost of his education. Quite apart from the personal benefit to the man himself, if it can save two years of education at a cost to the state of perhaps £2,000 it is a very good investment'. Had Malleson been alive now he would no doubt have been surprised that, after a period of galloping inflation, the cost of 'saving' a disoriented and disheartened student in 1977 was as low as £29.00 per student, based on the salary of one educational psychologist.(3)

It would also seem that the students who use the counselling service are by no means the 'weaklings' of the higher education system. Table 2 shows that 40% of the 298 undergraduates gained above-average degrees, 30% average degrees and 30% below-average degrees, including 18% gaining an ordinary degree. Overall, this distribution does not compare unfavourably with that for the university as a whole. The relatively small number of first-class honours awards is predictable in the light of the unit's research into personality correlated with academic performance (Wankowski, 1974). This showed that first-class honours degrees tend to go predominantly to people with stable and introverted temperaments: of the 232 first-class honours graduates studied, 1 in 3 was of a phlegmatic (stable introvert) temperamental disposition, as against 1 in 8 who were of a choleric (anxious extravert) disposition. Stable introverts tend to be very adaptable and educationally tractable and do not, as a rule, seek help from welfare services.

1. Of the 571 undergraduates in the sample, 55% were first-year, 30% second-year, and 15% in their third or subsequent years.
2. I am aware that these calculations assume that the counselling process *alone* has been responsible for a student's final success. Although this assumption cannot be proved nor disproved without experimental controls, the evidence from students' and staff letters received by the service is strong enough to claim a major share in helping many students to sustain their courses. The 'end-of-the-road' nature of the service also, as discussed in the text, offers strong support for this assumption.
3. This estimate is made on the basis of half a psychologist's salary at the top of the lecturer's scale (i.e. £3,985 p.a.) with the psychologist working half of the 1,610 hours in a 46 week working year. This work is thus at a rate of £4.90 per hour, and since the average number of therapy hours per client is six, the average cost per student is £29.40.

Table 2: Academic performance of undergraduates in educational counselling, as compared with all Birmingham undergraduates

Degrees	Undergraduates in Educational Counselling			University overall 1975/76		
	n	%		%		
Hons. I	8	2.7		5.2		
Hons. II (i)	68	22.8	(40.6)	26.3		(45.6)
Medical and Dental Degree	45	15.1		14.1		
Hons. II (ii)	89	29.9	(29.9)	39.8		(39.8)
Hons. III	29	9.7		8.1		
Aegrotat	4	1.3				(14.6)
Pass (ordinary)	53	17.8	(29.5)	6.5		
Repeating/external candidate	2	0.7				
TOTAL	298	100.0	(100.0)	100.0		(100.0)

At the other end of the degree hierarchy, there is a large group of students with ordinary degrees; 87% of these come from the sciences, where the 'weak' students are usually placed in an ordinary degree course after the first year. Surely no amount of psychological and pedagogical skill, applied in (on average) 6 sessions of counselling with a distraught student, can be expected to succeed to such a marked degree that his tutors would actively intervene in order to relax the regulations which have formally sealed his academic fate. The overall university surveys are again helpful here, since they have shown that students with ordinary degrees in science (both physical and applied) tend to be of choleric disposition (anxious-extraverts), and accordingly to be rebellious and restless. On the other hand, in the physical sciences those with honours degrees tend to be melancholic (anxious introverts) and therefore guilt-prone and compliant and in applied sciences it is the stable people — amenable and not so subject to stress — who tend to gain honours (Wankowski and Cox, 1973; Holder and Wankowski, 1980). Again, students from sciences who come to counselling tend to be, frequently, of choleric disposition. That people of this temperament may tend also to become the challengers and the changers of the world, and that they are often very creative, is another story which cannot be expanded in this paper. To me, as I know them, they are not 'academically weak', just different. But they usually have great difficulties in accommodating to things as they are. If properly

guided, they can easily be inspired to accept the rigours of academic disciplines, the pursuit of studies being turned into a moderating factor in their restlessness. This is not, however, a point to pursue here except to repeat my remark that the highest mark of teaching skill is to enable students to turn desperation into inspiration.

The temperamental dispositions of students attending educational counselling for whom personality data were available have been studied over a five-year period, and the majority (65%) tended to have higher neuroticism scores than the student population at large. This is as far as formal psychometric measurements go; from my own assessment of individual student's therapy, I would put the figure at over 90%. Students who have difficulties in studies tend to be more emotionally labile than those who do not suffer a similar degree of disorientation and despair (Wankowski and Cox, 1973). Research in the area of anxiety and stress seems to corroborate this observation (Spielberger, 1972; Philips et al., 1972; Peczak, 1976). They are certainly not the 'weak' ones who 'can't do it', since they have succeeded in surmounting all the pre-university hurdles of academic education. They are, however, ones for whom the system of tuition at university does not seem to be versatile or even robust enough to sustain them. Recently an attempt has been made to obtain information from students attending for educational counselling, on how they viewed the help given by this service. A postal questionnaire was sent to the home addresses of students who attended educational counselling in sessions between 75/76 to mid 77/78. A total of 263 questionnaires were sent and, at the time of writing, 150 had been returned. Amongst questions asked, one enquired about specific reasons for which help was sought and another asked if the student felt he had been helped. Study and examination difficulties, as the reason for seeking help, were given by 133 students (89%) and personal difficulties, including reference to ill health, tensions, anxiety and stress, were made by 17 students (11%).

An analysis of statements about the efficacy of assistance given to students presents the following picture: 121 students (81%) stated that they were definitely helped, 23 students (15%) stated that they were helped to some extent and 6 students (4%) said they were not helped effectively. The percentage of those who were helped, definitely or partially (96%), may serve as an indication of a self-declared, 'client' assessment of the educational counselling and study assistance service. A full analysis of this will, it is hoped, support this trend and reveal further trends and information. Until that time all that can be said about this attempt at 'client' evaluation is that the service is valued by a great majority of students who come to the Unit. It corroborates, to a great extent, the trends shown by the formal check of students' attendance for counselling against success in graduating described in the first

part of this section. Difficulties of contacting all 'ex-clients' by post are perennial, but an attempt will be made to follow up again the academic achievement of the entire group to whom the questionnaire was sent. At the moment, educational counselling on the campus takes place typically as an 'end-of-the-road' rescue and consoling service. Most of the students come for help when they have failed crucial exams and when they are about to withdraw. Despite this, the analysis of counselling data presented above suggests strongly that when skilled help combining psychological and pedagogical know-how is offered, the service is efficacious as well as inexpensive. The most logical next step is to transform it into a 'beginning-of-the-road' service — not in competition with other very essential welfare services, but as a commonsense educational facility for students to 'learn how to learn' at university. An efficient, self-directing learning facility for life is, after all, the prime object of university education, and if academic departments are unable to help some of their students to develop this facility, a central study assistance and counselling service should be tried (Wankowski, 1977). It should be considered not, as now, as a welfare service for 'ailing and failing students', but as a sound economic investment — a standard educational provision to help students to become more efficient as learners and more robust as people, capable of standing up to the stresses of transition from school to university. Such a venture would seem likely to be profitable in both humanitarian and economic terms (Wankowski, 1979b).

CHAPTER X

Janek Wankowski

SUMMING UP: REFLECTIONS AND OPERATIONAL PRESCRIPTIONS

1. Teaching and learning is not a process

It was, I am sure, right to begin writing this last point just after the National Independence day in Norway, when the naval guns salute and the roll of drums resounded in the fjord of Bergen, with the City's streets thronged with people. For I wanted, once again, to re-live my previous impressions of some years ago that this occasion is a living example of the profound difference between cognition and conviction.

Throughout the year the Norwegians know that they are Norwegians, on the 17th of May they are convinced of it! Or at least trying hard to participate in this conviction. The atmosphere was, in spite of the biting wind, cheerful and relaxed, but it was dominated by a visibly heightened spirit of the young and the old — that obvious but immeasurable extension of a positive awareness that counts in competence and hope and lacks in helplessness and depression.

And it is just this very *spark of positive awareness* that has been, in my mind, the focus of the issues I have been trying to discuss, under a variety of headings and themes in the past chapters.

I have tried to induce in the reader an impression that in spite of any organized educational treatment or provision, involving groups of people, large or small, there will be found those whose idiosyncratic, negative interpretation of the learning and the teaching situations will suddenly, or gradually, deprive them of the *spark of awareness of inner strength* and induce feelings of disenchantment, boredom, futility, helplessness and an unexpressed anger turned into depression. However skilled, benign and considerate the ways and means of helping people to learn in an assembly or in a group, some individuals, at some time, will not be able to proceed competently. And yet, it does not at all mean that most of them are, have been, or will be incompetent. But when, in a formal educational enterprise,

such as a university, the pedagogical skill, and the consideration are sometimes absent, the attrition amongst many able but disenchanted individuals will increase in an exponential manner.

There is nothing new about this disenchantment. As H. G. Wells, writing about his sojourn at the Normal School of Science at London University from 1884—1887 has said:

> 'No one bothered to find out why I had got loose in my setting, much less did anyone attempt to readjust me in any way. I was not the only struggler from the steady pursuit of the ordained course. The schools, I repeat, ignored pedagogics and had no shadow of a general directive control...'
>
> (Wells, 1966).

For neither learning nor teaching is a process, nor can they ever be fully controlled. They are, if they can ever be defined, a continuous social interaction between individuals, who are themselves a product of interactions with the world around them. Even a relationship with an object, a problem, or a subject of study has a strong element of interaction. The objects, the problems or the subjects of study act on the learner, or an observer, no less than the living beings. *Whatever we do, the doing does something to us!* This is an inescapable, instantaneous relationship. Sentient beings are affected by this reciprocity always — even plants are now known to respond to animals and people.

It is not even an interaction; that would be far too simple to even attempt to describe learning and teaching as such. It is an inter-reaction. For apart from interacting with the outside world, the individual interacts within himself as to how he interacted in the past, interacts now and hopes or fears to interact in the future. Hence, to think of students learning and teachers teaching as a process is to simplify the nature of learning to an analogy of a factory, or a means of transport, or communication, in terms of input and output within the circumscribed frameworks of man-made devices.

Neither can the nature of learning and teaching be regarded as an acquisition or a dissemination of intellectual competence. This obsolete way of understanding learning and teaching must also be regarded as largely superficial. As Oleron (1978) writing on the development of cognitive skills pertinently remarks, it is impossible to separate intellectual competence from psychological or social competence, which he defines as relations conserning other individuals. He also follows his argument that 'psychological competence is not limited only to relations with others. It also includes reference to oneself (self-consciousness, behaviour adapted to this consciousness, and self-management).' It is almost too tempting to keep referring to Oleron's paper for the problems he discusses, as a contribution to

a book on cognitive psychology and instructions, are analogous to the problems of perceiving intellectual competence by a great majority of academic teachers. Cognitive psychologists have long since veered away from preoccupation with cognitive activities, as applied to the domain of 'the world of physical objects and materials', and proceed towards examining the domain of cognition related to 'the world of facts and psychological/ sociological actions'. Academic teachers, perhaps because they are largely untrained in pedagogical methods, but also for other reasons, still keep to the first domain. Oleron's common sense remark that 'a large part of the life of the child (and of the adult) is made up of contact with other people in the framework of social organisations, institutions, and habits', and that 'life is determined by motivation, reactions, attitudes, emotions, enthusiasms and rejections, all of which are linked to the origins of actions and reactions and are not easily understood via the theories of either physics or logic', should warn academic teachers that with such a plethora of influences no single way, or provision, including even the training or hiring of the most skilled person to cope with learning difficulties, will ever solve the problems of a great number of students. Individual students must be consciously prepared to help themselves when they stumble in their studies or, at least, to know where to go for help.

2. *Learning and tuition, inter-reaction and 'stress innoculation training' through challenge and protection*

An acquisition of knowledge, skill or of competence to cope generally, or specifically, is not an input-output process either; even if it tends conveniently to be so regarded by scores of teachers in schools, by a far greater number of teachers in academies, and by the swelling cadres of educational administrators.

Effective and competent coping in life is the perennial goal of learning and teaching or, as I like to regard it, of teaching oneself to cope through inter-reaction with others. And the most important part of teaching oneself, or others, how to cope is to experience what it feels like when one seems unable to cope and to teach oneself, so to speak, *how to cope with failure to cope.*

And that is where the skill of the person, who helps others to teach themselves this very lesson, comes in. For skilled teaching and self-teaching is but a careful 'regulation of the learning dilemmas', which must provide conditions for the encouragement of challenge and for the assurance of security. The signs of success and the knowledge of results must be copiously provided, and so must the experiences of non-success, as well as an occasional

experience of the lack of knowledge of results. As Sandven (1979), summarising his important work on self-realisation says:

> 'the environmental world should be shaped not only to give the necessary protection to foster the feeling of security, but at the same time also provide the necessary amount of challenge in order to allow the developing individual an opportunity to reach forward, to make efforts to do or manage something which goes beyond what has already been mastered... When talking about conditions for self-realisation... The concept of protection and the concept of challenge, may be regarded as of fundamental importance'.

Recent trends in therapeutic procedures in neurosis and depression have at last tumbled to it and regard it as the so-called 'cognitive regulation of consciousness' (Schwartz and Shapiro, 1976; Meichenbaum, 1977) and 'stress innoculation training' (Meichenbaum Turk and Burstein 1975). This is again a rediscovery of a very powerful means of self-control through experiences of bearable discomforts of stresses. The principle is, of course, as old as the hills, and again, the poets, sensitive to the numberless extensions of the struggling human spirit, captured it centuries ago, whilst the psychologists fumble their way through decades of experimental research only to re-discover the old, long-burning fires.

When exusing myself for using jargon, I referred in conversation to 'stress innoculation training', a literary colleague of mine asked me if what I meant was equivalent to Shakespeare's 'sweet are the uses of adversity'? I readily agreed that it was so, and looking up the passage in 'As You Like It' I found that the Duke Senior, entering the Forest of Arden, has in his speech summarized an entire volume of the most up-to-date counselling theories in seventeen lines! I quote them here to illustrate in a poetic way which, heightening the perception by the use of imagery, presents, in a light-hearted and humourous way, one of the most essential functions of a study assistance and educational counselling service. For why should I not, in acknowledging that 'poets are teachers of mankind', save the readers having to read volumes about the nature and the function of such a service:

Duke Senior:

> 'Now my co-mates and brothers in exile,
> Hath not old custom made this life more sweet
> Than that of painted pomp? Are not these woods
> More free from peril than the envious court?
> Here feel we but the penalty of Adam,
> The seasons' difference; as the icy fang
> And churlish chiding of the winter's wind,
> Which, when it bites and blows upon my body,

Even till I shrink with cold, I smile, and say:
'This is no flattery; these are counsellors
That feelingly persuade me what I am.'
Sweet are the uses of adversity;
Which, like the toad, ugly and venomous,
Wears yet a precious jewel in his head;
And this our life, exempt from public haunt,
Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in every thing: . . .'

The poet has even included, in Amiens, a model of a perfectly tractable student who would obviously never need to visit a study assistance service:

Amiens:
'Happy is your Grace,
That can translate the stubbornness of fortune
Into so quiet and so sweet a style'.

And how can training to endure the hardships of bouts of incompetence be best arranged if not in experiencing these stresses in company of others who can, such is the nature of sociability, help to shock-absorb doubts, loss of hope and helplessness? Since, from the beginning of life coping is learnt in a social context, coping in schools and at universities is an essential part of the pedagogical interaction. Its nature cannot, of course, be a replica of the earliest coping lessons in the family, but the elements of mutual support must be there, if only as contractual arrangements in order to create a matrix for the fulfilment of the principles of security and challenge.

The supreme importance of the two conditions of security and challenge which make for effective learning cannot be overestimated. All success in learning to live fully and courageously depends on these two being in a state of 'relative equilibrium' (I say relative, since switching from one to another is, I think, the spring of its creative dynamic; the most important feature seldom appreciated by teachers at all levels of education). New learners must experience a secure base of protection from which to venture forth to seek and to master new things and new opportunities. Universities themselves should be the embodiments of these principles being, as institutions, set aside and funded for exploration and expansion of the frontiers of knowledge. Whether the senior members (the tutors) can provide, or are fulfilling this function by providing conceptual and pedagogical frameworks of security and by encouraging exploration is another matter. Many, to my mind, make use of these vital elements of 'knowledge making' (Wankowski, 1980) primarily for the advancement of their own careers as experts in their fields of research. The junior members (the students) do not consciously set out to create for

themselves a secure base of exploration, though most who are successful stumble on it intuitively, by trial and error.

Certainly all remedial, rehabilitative and corrective training schemes depend for their success on these two conditions being present and a glance at the most popular schemes for improving students study skills might be an appropriate illustration of this fact.

Let us then have a brief look at the most recent collection of writings about ways of assisting students in learning how to learn.

3. Study methods, techniques, and sociability

I propose briefly to review the main points of the recent publication of the Society for Research into Higher Education (Hills ed., 1979) and of the Symposium of Practical Approaches in Higher Education published in the British Journal of Guidance and Counselling (1979).

All I am concerned with in reviewing these publications is to point out that, in both these compilations, the methods, or the ways of helping the student to cope with his studies are clearly based on the principle of mutuality and as such depend entirely on the provision of social interaction in learning/teaching transactions which creates a climate of security and challenge.

Thus, in the first monograph there are, apart from valuable chapters discussing a variety of important topics about study courses and counselling, eight separate descriptions of methods in study assistance. Seven of them state very clearly that the mainsprings of building up coping skills in study are those of mutuality of social transactions. And so Hills and Potter (Group Counselling and Study Skills, 1979) explicitly state that help in adjusting to new circumstances implies an attitude change which comes about mainly through increasing elements of participation and mutual group support. Da Costa (Profile of a Study Skill Workshop, 1979) says that the main transaction in the workshop is learning from one another and picking up skills from the experiences of academic staff participating in the workshop. The object of the workshop is to bring about a change of attitude to the problems of study through the use of social encounter; as if proclaiming: *we are all in the same boat now, or were when we learnt how to teach our subjects, let us now help each other.* Chibnall (The Sussex Experience, 1979) states that the main vehicle of help is the fact that students become involved in what is being discussed about study methods amongst themselves. He describes the so-called 'snowball' effect of interacting first with a neighbour, then with the small group, then with a tutor. The method, to me, relies mainly on graded experience of familiarity with the problem examined and discussed in a

social situation which serves as a source of security and thus of encouragement towards independent learning how to learn. It is again essentially a social learning situation. Elton's et.al. (Study Counselling at the University of Surrey, 1979) method depends on a one-to-one help which, they say, produces benefit from the interaction with an experienced learner/teacher. It is, of course, an example par excellence of the old craft apprenticeship; the most effective, though often maligned method of inducing learning competence, mainly through imitation of a skilled model. Here mutuality and contractual effects are both highly operative. Goldman (A Contract for Academic Improvement, 1979) gives another variant of the one-to-one transaction of working through the problem. James (Counselling the Mature Student, 1979) describes the way the counsellor and the student work together through the problem, where both teacher and student have to grow into new roles.

As for my own contribution in the same book, it obviously fits the general pattern of the theme of mutuality which, I hope, showed through my discussion in previous chapters. Nelson-Jones (Counselling Approaches to Increasing Student Learning Competence, 1979) summarizes his reviews of counselling by saying that he views the role of counsellor as facilitating learning competence in his institution through cooperation with his academic colleagues. This is, of course, the core of any attempt to develop a study assistance service at any university by creating an atmosphere of trust and mutuality in the interpersonal transaction between subject teachers and study assistance advisers.

The symposium on study skills published in the British Journal of Guidance and Counselling (1979) is also quite explicit about approaches to the problems of study assistance work based on the principle of social inter-reactions. Thorne (1979), introducing the individual contributions, concludes the review by saying:

> 'It is perhaps not over-fanciful to predict that as institutions become increasingly concerned to offer opportunities for acquiring learning skills, they will inevitably become characterised by a growing recognition that learning is more likely to take place where individuals listen to each other and value each other's co-operation in the *shared pursuit of knowledge'*.

Goldman (When Knowing How is Not Enough, 1979) presents two case studies where the co-operation in a 'working through' of students is the key. Both the counsellor and the student work out a solution for which neither of them have, to begin with, an obvious prescription. Hari-Augstein's et.al. (Learning Conversations: a Person-Centred Approach to Self-Organized Learning, 1979) technique is clearly a re-application of the old Socratic

method of dialogue, with the aid of the technology of a recording as feedback to the learner. It is essentially learning through a tutorial conversation, how to organize self-tuition. They are again exercises in gaining experience of interacting with the individual's chosen world. Gibbs' and Northedge's (Helping Students to Understand Their Own Study Methods, 1979) is again essentially a social interaction technique where 'students can easily question the purpose of their own studying and compare their ways of tackling tasks with their colleagues'. Gibbs and Northedge, both shrewd and perceptive young educationalists, see their design of study skill interventions as fitting within the obvious fact 'that learning to learn is a continuous life long process'. And how right they are, for helping people to teach themselves how to learn one thing must always evoke the 'spin-off' effect of a transfer of training 'if I can teach myself to learn one thing, surely I can teach myself another'. A well performed task always provides a powerful stimulus of joy and self-satisfaction. Since all, or most, stimuli must obey the law of stimulus generalisation (the natural endowment of the working brain), the pleasure of coping with one task is very likely to contribute to the pleasure of being able to cope with another and thus to learn even more.

Most study assistance techniques, because they are rooted in the sociability of cooperative interaction, fulfil the principle of mutuality which satisfies both the learner and the teacher, not only as two individuals meeting for the purpose of solving a common problem, but also as facilitators of their own and their partner's mastery of learning new and often difficult skills. That is where the addiction of Chaucer's 'Clarke' comes in — poetry again: 'Gladly would he learn, and gladly teach'. There may not have been educational problems for the pilgrims to discuss on their way to Canterbury, but life was no different in its main joys and stresses, and pilgrimages created opportunities for the freshening of stuffy and overwrought minds by indulgence in the endless chats, in the company of people who were all momentarily free from the fetters of conventions. The counsellors in Chaucer's time were, I tend to think, the merry 'Pardoners' (Jusserand, 1889/1961) let loose amongst the guilt-ridden and confused populace, squirming under the yoke of over-elaborated rules of a rigid dogma. Many counsellors and teachers would, I know, recoil from such an analogy, but I am quite ready to contend that all social institutions — and universities are no exception — will ossify and tend towards formality, rigour and detachment. They must have their softer spots and easier corners of sociability and care for the substantial numbers of younger members who become unduly disoriented, apprehensive and bored. The provision of personnel, trained in study assistance techniques, would do much to help such people.

It is my opinion that both the excellence of the Oxford and Cambridge tutorial system and their smallest student wastage rate amongst British universities is due mainly to the pedagogical advantages of the social transaction of 'apprenticeship' to the personal tutor, which fulfils the conditions of security and exploration. Neither their special selection procedure, nor the collegiate system, nor even the weight of their tradition of academic 'crack battalions', would contribute as much to the successful graduation of their students should the close tutorial system be abandoned.

The magic of learning competence acquired in these universities is not difficult to discover. All students have to produce essays once a week, or once a fortnight in some colleges, and to read and discuss their efforts with their tutors. The essays are usually well pointed towards examination requirements. The principles of security and challenge, the give and take of mutuality, the knowledge of results (feedback) and the contractual nature of the tutorial relationship all contribute to the effectiveness of tuition and learning. Students in other universities in Britain have to write comparatively fewer essays as their course proceeds: in some courses as few as two or three a year, or at most three a term. The essays are seldom marked or returned quickly, or discussed at length with the tutors. The writing of the essays is not, in the main, considered as directly helping students to learn how to write quickly, cogently and reflectively during the major, sessional examinations. They are not, as at Oxford and Cambridge, the means of training the mind in summarising and in reflecting on reading and thinking about the subjects of study, neither are they considered as directly relevant exercises towards the mastery of examination techniques. Thus the main principles of effective learning which I have mentioned above are seldom, if ever, fulfilled. These systems of university traditions in teaching create less disenchantment in the former and more disenchantment in the latter institutions. Pertinent research into educational procedures of these two systems would, I am quite convinced, result in a similar inference. The contractual relationship in tuition and learning at Oxbridge cannot fail to result in more competent learning by their students, at least as far as the formal requirements of satisfying these universities' examination systems are concerned. This is because the contract of working for and with a tutor provides security of awareness and hope that things in the end will work. The fact that the learner is able to attribute, at frequent intervals, some measure of certainty about the outcome of his learning endeavours creates positive feelings of safety which, reducing the tension of helplessness and fear, contributes to a more relaxed intellectual functioning. And the palpability of the attained objective, such as, say, the completion of an essay, a laboratory report or a seminar paper, automatically evokes *the feeling of approval and recognition from another human being,* the

teacher or the co-learner. It is this latter element of the contractual fulfilment that is, to my mind, most important. It is also, alas, the most elusive and seldom overtly acknowledged value in the social relationship of teaching and learning. Any attempt at assisting students to learn how to learn must be built on this value. It is also here where Raaheim's scheme of helping students links most pertinently with what these writers and I have to say. The contractual transaction of the teaching/learning inter-relationship is the basis of competent learning together; not only as teachers of learners but as learning from those who come to be taught. The mutuality of trust, that fruitful efforts and clear signs of guidance will be worked out in the course of tuition is the key to this interpersonal transaction. Just a dose of mutual trust, so that the novice can rely on the older partner to see him through the greatest difficulties, and the senior partner will himself benefit by the competence of his junior co-learner. For many students it is just this that makes the difference between success or failure to complete the course; a strong dose of mutual trust which engenders the feeling of a worthwhile inter-relationship.

Here I might just as well mention that throughout writing my contributions to this book I have been very keenly aware that the elements of sociability in co-operative contracual learning and tuition are not yet at all well understood and appreciated by teachers at all levels of education, though pertinent and promising research in this line is already in progress (Sandven, 1979a). There are, to me, many obvious reasons for the reluctance to ponder on the benefits of the transactional nature of pedagogic activity, but to describe them in detail would require too much space. It is, however, often from the perceptive people, who are outside the formal educational setting, that the most valuable insights about the practical, common sense nature of education come. An example of such a gem of insight, put most succinctly, came recently from a journalist, Polly Toynbee (Guardian, 1979) who, writing about Canterbury Cathedral choir boys school, had this to say:

> 'But I sensed in those *children* an astonishing adult pleasure in their work, a kind of fulfilment. What most *children's* education lacks is the idea that children are of *any use to anyone*. They are, implicitly, expected to accept the charity handed out to them day after day with gratitude. Teachers and parents are always giving, teaching, ordering with absolute authority. But these *children* are givers as well as receivers. They have rights, they are valued employees and have a correspondingly adult self-confidence'.

Now, if the reader substitutes the word 'students' for the word 'children' Polly Toynbee's insight into the principles of competent learning becomes also a prescription for an effective tuition transaction at any university. All the reader has to do is to ask himself (if he is a university teacher) if his

manner of tuition helps his students *to feel* that they are also contributing to this transaction — albeit this is a great deal.

4. *Conclusions, recommendations and operational prescriptions; when wishful thinking leads to wishful doing*

It is quite possible that the variety of themes and schemes touched upon in this collection of chapters will not 'jell', in the reader's mind, into a distinct point of view about matters of teaching and learning in higher education, in general, or about matters of helping students how to learn in particular. It is therefore necessary to gather up my views into a more connected unity of thoughts, contentions and operational prescriptions.

I contend, in the first place, that individual differences of children, students and adults are so marked that any unitary scheme of education, or even a variety of schemes, will never provide satisfactory conditions for all students to become competent learners. Flexibility and extensive allowances for individual differences must be built into any educative milieu. This flexibility can be most economically provided by helping students themselves to develop their own individual patterns of effective study. This help should, of course, be a part and a parcel of skilled teaching, both at the level of the personal one-to-one tuition transaction and at the level of group or even mass teaching, as in Raaheim's scheme (see Chapters V and VII). I define skilled teaching as a facility for organizing people's learning in such ways that they can become competent self-teachers for life.

Unfortunately, I do not hold much hope that universities or institutions of higher education will, for a long time yet, pay more than lip service to the necessity for professional pedagogical training for 'the faculty' which would enhance learning competence of students. Only a widespread fear of some major disaster, such as dire scarcity of energy for maintaining basic technology could make an impact on the traditionally and bureaucratically entrenched attitudes of the great majority of academics and administrators. Monetary rewards for professional training qualifications, awarded for the duration of academic tenure, would of course soon bring about the softening up of the tightly held inference that teacher training is unnecessary for university dons. But this, I am told by many of my colleagues, is a thoroughly unrealistic approach and one which is also not exactly 'academic cricket': in a sense, that, in Britain, financial remuneration for acquiring a professional teaching qualification is, for some reason, considered as beneath the dignity of a university academic.([1]) Another administrative variant for loosening up

1. I have developed this point in a separate paper (Wankowski, 1980).

the grip of aversion to training for teaching in the academies would be to make the governmental allocation of finance, to faculties and departments, on the bases of the last three year trends in the *number of graduating students* rather than, as now, according to the *numbers recruited.* But this again, I am told, is a far too drastic prescription.

However if it is true that universities are now becoming somewhat more sensitive about training of teachers, as they indeed appear to be in Britain, we can gauge this upsurge of interest in palpable terms of finance spent by them to support professional training. The figures, recently available from the report of the Co-ordinating Committee for the Training of University Teachers([1]), indicate that 'universities spent less than *one twentieth of one percent* of their grant on staff training'. And if we reflect that teaching is supposed to be a half of the universities' official function and objective — the other half being research — this minuscule provision does not seem to indicate any serious change of heart in matters of professional training of the staff.

So the student must be quite frankly told that he has to find ways to teach himself how to be an effective and competent learner, and, since just telling him that would not solve the problem, he must be provided with information where to seek help in these matters.

And it must, of course, be obvious that an effective study assistance service cannot just be a period in the department's timetable, when the student can see some voluntary member of staff to help him. It must be a permanent establishment, manned by a group of pedagogically trained and skilled workers, who would make the problems of study methodology their own professional interest. It might not, in the present climate of academic attitudes and finance, be feasible for such a service to be established in every faculty, and the fact must also be recognized that a major advantage of such services derives from their position of neutrality in matters of formal academic assessment.

I do not see any reason why, in Britain, with every university endowed with either a faculty, an institute, or a department of education, a firmly established unit for the *study of the problems of higher education,* and including an efficient study assistance and educational counselling unit and permanent courses for diplomas in teaching in higher education, should not be regarded as a logical possibility. University departments and institutes of education in Britain were established to meet the need for training of teachers for secondary education which was rapidly expanding in the first half of this century. Higher education is expanding now and it is, I think, high time to spend some more money on professional training of teachers for this

1. Established in 1972 and including members of the Committee of Vice-Chancellors and Principals, the Association of University-Teachers and the National Union of Students.

advanced educational sector. I will develop this point in part Five of this chapter.

In the second place, the reader might have conjectured that I have paid much attention to the problems of anxiety and stress as an inhibitor of effective learning. And if, in some places, I suggested that high emotionality, transformed into an obsession with an intellectual activity as a defence mechanism against greater anxiety, might be helpful to some people, I consider this a marginal phenomenon. Generally and with most people, high anxiety is detrimental to balanced and rational thinking. Fear and high nervous tension make us react muscularly rather than intellectually. Speed and a quick 'yes-no' and 'black-white' solutions are most satisfactory when the mind is in an emergency state. Many people may remain in that state for a very long time, for weeks, months and years. With some, it becomes a chronic way of adjustment to the contingencies of life. It is basically immaterial, for the purpose of helping a student to regain learning competence, whether anxiety states come about in response to specific situations, or arise from some genetic proneness, or if they evolve from both (Rozycka 1979). The fact is that almost any person, in a prolonged state of anxiety, will develop 'reactive depression' when it is absolutely useless to keep telling him or her overtly what they should do. People in this state have passed the point of ordinary reasoning and a barrage of reassurance from well meaning helpers will be of no avail. They must be helped actively to teach themselves, also in an active way, to loosen up their tight neurotic inferences about themselves, their work, their failure and their helplessness.

It does not matter how a prolonged anxiety or stress is defined, whether as 'incubated anxiety', (Eysenck, 1975), or as 'a state of exhaustion' in Nixon's (1976) scheme of describing human functioning in terms of relationship between arousal and performance. What matters is to recognize what stress does to people who experience prolonged states of helplessness. Nixon's description of the states of functioning is relevant to the point I am making here. The healthy functioning exists 'when arousal enhances performance and the individual feels well' and 'his qualities required for success, namely rapid and flexible thought, originality, vigour, expansion and capacity for sustained effort are abundant'. But then the person reaches a state of exhaustion

> 'increasing the arousal worsens the performance and sets up a vicious circle, because widening the gap between the actual and the intended performance increases the arousal by generating anxiety and insecurity, unrealistic views of the gap are adopted, errors increase and personal relationships deteriorate. Others can see the growth of unhealthy tensions and the symptoms of strain: bad

temper, continual grumbling, longer hours worked but less achieved, repeated minor sickness and preoccupations, together with insecurity about health and the future, procrastinations, losing sight of long-term aims in preoccupations with minor matters, feeling of frustration and persecution by colleagues with complaints of lack of co-operation, technical jargon and catch-phrases replacing original thought' (Nixon, 1976).

Students in such states of exhaustion often need a specially trained person to help them. And such help is better obtained away from the faculty or department. As Chandler (1978) aptly remarks in her valuable book on counselling: 'the concerned and sympathetic professor can be seen as hypercritical and threatening by students whose guilt about their failure distorts their perception. Equally, those in authority can often fail to perceive that their advice is inappropriate'.

I would, therefore, like to contend that psychological services are also needed within the scheme of study assistance services at university. Educational Psychologists taking up this work should have a sound training in clinical psychology. Such a provision cannot be done 'on the cheap', but the cost, as I tried to show in Chapter IX, is not all that great, and the service could pay for itself out of tuition fees saved by 'rescuing' the disorientated students.

5. *Virtue is practice: research-cum-study assistance and university teachers training service*

In my third point I should like to describe the nature and the function of a new service within the institutions of higher education which would create and combine those conditions of educational innovations which are now, for a variety of reasons, impossible to include in the formal structures of faculties and departments.

What I have in mind is as yet a vague collection of ideas rather than a tightly drawn outline, which can only be crystallized by implementing them in practice.

Since the human being is basically a creature of movement, exploration through action is prior to intellectualization through theories and therefore probably more meaningful to the organism. *It is easier to act oneself into thinking than to think oneself into acting.* Being fully aware that my thinking about such a service is an outcome of my own practice in 'trouble shooting' in tuition and learning, I hope that experiments of an exploratory nature would lead to a still clearer elaboration of what such a service might be about and how useful it would become to any institution of higher learning. I do, of

course, realize that it might appear rather a tall order to those who would like to have a more clear-cut plan. But even here, I think, I shall be able to demonstrate, as I go along in this discussion, that the enterprise may not be expensive; in fact it may even be self-financing.

Let us, first of all, look at the objectives, the nature and the function of such an extra-disciplinary service. Though let us remember that, as I said before, it fits only too well into the already existing and well developed field of educational studies, with almost every university in Britain having an established faculty, institute or a department of education. So what I am proposing here is nothing more than just another branch of this field of academic discipline which grew out of the sheer necessity, early in this century, of training school teachers, mainly for the secondary education sector. Now, with the continuing expansion of higher education, it is time, I think, to extend pedagogical studies of this important tertiary stage in a similar manner. There are, of course, already some centres of study of higher education in Britain, Lancaster, Bradford and London being the foremost examples. There are also the well known projects of such studies in many countries in Europe. The invaluable work of the European Association for Research and Development in Higher Education, as reflected in the publications of their Congress proceedings of 1974, 1976 and 1980, gives the most clear indication of the widespread need to examine the problems relating to higher education. The last Congress in Klagenfurt discussed no less than 150 papers contributed by higher educational researchers from all over the world.

What I now plead for is really the creation of a standard provision for research-cum-study and teaching assistance services in every university, polytechnic and other establishments of higher education.

Some efforts are now being made in a few universities in Britain to set up miniature study assistance services in faculties and large departments, by providing 'learning resource centres' equipped with video-tape and slide-tape apparatus. They have no permanent, pedagogically trained staff committed to this work, and from my experience of universities and of the prevailing attitudes amongst academic staff, such unmanned, separate entities will not be able to fulfil effectively the main functions and objectives which I intend to describe. Above all, *they will not be able to create continuity of interest and accumulation of research experience and methodological and procedural know-how,* which only the well established services with long-range research and tuition projects can provide.

For what I have in mind is a service which would attract committed and experienced educationalists from a variety of disciplines who would be interested, not only in the study of the nature of teaching and learning in their

own academic disciplines, but in an extension of these interests into a more comprehensive conception of pedagogics in higher education. Briefly, such services would be engaged actively in four areas of educational provision which are now sadly lacking in most establishments of higher education.

The four areas of operations are as follows:

(a) systematic research into problems of tuition and learning in higher education, including problems of attrition and wastage of students;

(b) study assistance and educational counselling service for students;

(c) assistance in problems of tuition and an advisory service on students' problems for teachers;

(d) permanent institution of courses leading to advanced diplomas for teachers in higher education.

I will now reflect on the need for all these four aspects of the study assistance services to be co-ordinated into one integrated unit. The reasons for the integration of these four functions and provisions are as follows:

Learning, I have argued before, is not a separate activity from teaching. You cannot, as Gallileo rightly pointed out, teach anybody anything, you can only help them to teach themselves. The division is, to me, superficial and derived from words describing complementary functions. It has grown into a chasm caused by an advantage of knowing, transformed into a mantle of power and professional prestige, ending up in sheer academic snobbery (Gratzer, 1980). The division of these concepts is as superficial as the mind-body problems in philosophy, to which my standard reply is that it is impossible to have an inspiration without respiration. And with the learning/teaching phenomenon the situation seems very similar.

But jesting apart, let us consider the need for the provision under point (b) first. The problem of a study assistance service for students seems to deserve priority since students' competence in teaching themselves how to learn for life is the primary object of the academe.

In order to put learning/teaching activity into its proper context let me repeat that educating the younger generations, whether spontaneously in the family to begin with, or formally later in schools and universities, rests on the principles of challenge and security. Both of them may be regarded as expressions or transformations of the basic physiological propensities of any living organism which sports a network of the nervous system, namely the exploratory and the integratory propensities. We may expect that an undue imbalance in the process of exploration and integration (turned into the challenge and security principles) will result in an inefficient mode of existence or, it is better to say, in an ineffective mode of learning to exist. Good schools and perceptive teachers can skilfully balance both tendencies.

I am quite convinced that much disruption and unhappiness during the compulsory, late secondary education in Britain is caused by insufficient and/or meaningless challenges confronting very large numbers of late teenagers in a stereotyped, largely theoretical, and deadly boring, traditional curricula. A similar situation obtains in Scandinavian countries where, as Sandven (1979) states:

> 'Research which I myself have conducted on several occasions in Norway thus leads to the conclusion that around one third of the students in the last grade of the youth school do not experience the school as satisfying. Rarely, or only now and then, do these students have a sense of well-being. Particularly is this the case in their relation to their school work... Studies in other Scandinavian countries have given results of a similar kind.'

It is also possible that in Britain the famous sixth form education provides, on the whole, too little, or an inappropriate form of the challenge needed to prepare their pupils for the demands and challenge of the university. The phenomenon of the 'disenchanted elite' outlined in Chapter IV is, to my mind, brought about by the imbalance between challenge and security. Many students must learn very quickly to withstand the sudden upsurge of a challenge to stand on their own two feet, without the immediately apparent support of the teachers. In many areas of study and with many teachers at university the challenge can be absent or so miniscule that it creates a state of utter boredom. I find that many enterprising, emotionally stable and lively students, particularly women, get so bored with the stereotyped routines of tuition by the 'chalk and talk' methods, that they often tend to quit their courses in order to find something more worth while. I have also found that these highly enterprising people can very easily learn how to create their own challenge within their areas of study, if they are helped to understand the inevitable nature of their boredom arising from the dullness of tuition. Their emotional stability enables them to develop a detached attitude and their natural sense of fun and humour helps them to find some sparks of excitement in the dullest routines of teaching. The technique of helping such people can be very simple. A game of solitaire or a handy jig-saw puzzle can serve as a quick demonstration of the effects of fascination with the inter-play between the self-imposed challenge and the security of an instant knowledge of results, which leads to the setting up of another challenge.

Any learning/teaching procedure that balances the provisions for the fulfilment of these two principles is bound to be effective. Allport's (1955) well known psychological principle of the 'functional autonomy of motive' according to which, with the satisfaction of a well completed task, which engenders a feeling of security, any activity may become its own source of

motivation, is an obvious illustration of this inter-play. The element of self-satisfaction, derived from the inter-play of security and challenge, becomes a far more valuable reinforcement to many individuals than reliance on the strength of any extrinsic rewards from outside.

But it is also true that with many people this happy knack of balancing exploration and integration of knowledge must be learned and it must be facilitated by people who already possess it. If teachers in universities in their lecture rooms, laboratories and seminars cannot or will not do that, an efficiently run study assistance service, well versed in principles of pedagogics, should provide for the frequent occurrence of this common sense educational experience.

Having studied Goldschmid and Brun's (1979) most valuable work in individualized instructions I have no doubt that its impressive success depends on the fulfilment of the principle of balance between security and challenge. I have personally learned this whilst helping children with reading difficulties who, lost in the maze of seeming inconsistencies arising from the parsimony of the 26 letters of the Roman alphabet to cover over one hundred basic sounds in English, began to make visible progress after learning some principles of phonetics. Even the most simple knowledge of the rules of substituting the basic sounds by letters served these children as a secure basis for further exploration in helping themselves to read more advanced texts.

A study assistance service for students would, of course, automatically fulfil another important function in my scheme. The staff — who I imagine should be both teachers and educational psychologists — confronted by daily demands for help from students, would soon find themselves under a constant barrage of challenges to which they would have to respond. They would have to learn quickly how to cope with a great variety of study problems and how to provide enterprising help when meeting these new challenges.

So here we also come to point (c); assistance in tuition and advisory service for teachers. The staff in the service would thus be advantageously placed to utilise their accumulated knowledge of students' difficulties in advising their faculty colleagues how attrition could be prevented by timely and appropriate action at the level of teaching.

Only now can we come to point (a); research into problems of higher education. The challenge of meeting and of solving the problems of students and teachers will call for systematizing the information gained from practice and for controlling the plausibility of the theoretical constructs derived from the observation of what goes on in the course of advanced learning.

Here we might also reflect that psychology itself, even that branch of it which is most experimentally and psychometrically based, begins to admit that the further serious developments in psychological knowledge will most

probably come from 'clinical' contacts and observations of the individual's idiosyncratic differences. To quote Eysenck and Frith:

> 'Rather it is in clinical psychology normally considered the most theoretically and methodologically backward area of psychology, that the most advanced methods of analysis of data from single subjects are being developed'.
>
> (Eysenck and Frith, 1977).

The service will thus become a natural resource and a base for long-range, ongoing pedagogical research, where the individual and the group phenomena of teaching and learning can be observed and evaluated through the discipline of rigorous and systematic enquiries.

The most wasteful feature of the contemporary trends in the research and practice of education is the gap between learning theories and experimental findings and their application at the level of tuition and learning. This gap is widest at the level of higher education as pertinently argued by Elton and Laurillard (1979) and Lambourn (1979). Lambourn contends that teachers in higher education eschew any effort to imagine how the findings of educational research may be utilised for the improvement of their tuition skills or for improving their students' competence in learning. There are, of course, many reasons for this resistance but the point made by Lambourn is, I think, valid when he says that teachers tend to disregard the research because it is not their own and therefore not immediately relevant and not arising from their daily work of struggling with (or of enjoying) their teaching. My contention is that this understandable, even if basically very primitive syndrome of professional alienation cannot be prevented except by encouraging teachers to research into their methods of tuition and learning as they teach. The service I am trying to describe will be well placed to encourage this kind of development. It will provide a permanent point of reference and activity whereby the experimental research in the higher education pedagogics would thus become an integral part of applied tuition and learning methodologies. It should grow healthily and pertinently from the demands for pragmatic solutions and lead to theories and models of thinking about the nature and function of higher education itself. The components of challenge met squarely every day and throughout every university session will enhance a greater integration of knowledge of why and how people learn.

The results of research, *particularly if the research can be carried out jointly with tutors in departments,* will provide a basis of security of the professional know-how for further exploration of what happens when certain procedures of skilled teaching are applied or modified in a given course, with a given group of students or with certain individuals. By encouraging teachers in the departments to take part, or to conduct their own experiments in tuition

and learning methods and procedures we can expect greater involvement in the pedagogical side of their work. It might even be that a larger number of tutors in the university will, for example, realize early in their teaching career that one of the very simple but effective ways of encouraging students to enhance their competence in learning is to mark their essays constructively and to discuss them as soon as possible after submission, rather than after one month, when the student, who has by then written another three essays, has forgotten what his first essay was all about.

It is surprising how an act of asking yourself a very simple question about your own tuition procedure and following it up with a simple research exercise can, on analyzing the results, bring about a sobering inference that what one has assumed to be an effective method proves to be no better than any other or perhaps even worse. It is from such experiences that improvements in pedagogical skill are evolved. And the advisory service for teachers, combined with rigorous and enterprising research in tuition and learning methodology, should become a centre for conducting and encouraging such research.

We can now take up point (d), as the most irksome problem of encouraging university teachers to educate themselves professionally how to teach, or at least how to continue learning about their own teaching procedures and their own attitudes and thinking in this area of work. I think it would be futile to go into reasons etc. for the need for professional training for teachers of higher education; it is already a battle that has been won. The need, in spite of strong opposition, is recognized sufficiently strongly to take more positive action. Personally, having served for years on the advisory Committee for Staff Training, I can only see one effective way of encouraging university teachers to train themselves professionally. My advice is, frankly, a generous provision for a *permanent financial advantage over those who do not wish to take up systematic courses of study in education*. University teachers may, to begin with, be engaged and paid for teaching, but they are nearly always promoted solely for research publications, any exception from this rule stemming from other, sporadically arising specific reasons. It would be, to my mind, very difficult, and unjust, if not nigh impossible, to evaluate teaching whilst the person is already engaged in it. Such evaluation efforts and procedures would only induce more infighting and resentment amongst academics than at present. So the only way out is to follow up the pattern of training school teachers and to train university teachers by full-time, or part-time courses, leading to a *diploma in teaching in higher education* before they are appointed, or whilst in service. The possession of such a diploma would entitle a university teacher, on appointment, *to receive the equivalent of at least two or perhaps even three yearly increments of salary* and to keep this reward for life — the advantage in financial reward must be considerable. *The vogue for*

interest in teaching would blossom overnight, and there can be little doubt that a residue of discussions, arguments, readings and contemplations, as well as lessons from supervised teaching practices, would leave a permanent mark in the professional consciousness of all dons who have gone through such courses. *Time* given to such studies and opportunities for thrashing out educational problems systematically and continuously over many months, *is the main factor;* the contents of the course being only of secondary importance.

And where better to organize and to run such courses if not within the services of study assistance and research in higher education, where most of the necessary expertise, experience, the know-how and research facilities would be concentrated.

As for the costs and expenses? Well, let us recall the savings for the university derived from tuition fees of students who were rescued by the study assistance and counselling services in Birmingham, described in Chapter IX. Rescuing 60 students a year may save the university up to £20,000, as a very conservative estimate (at 1976 costings). An efficient study assistance research and educational counselling service — it does not really matter what it is called, provided it is engaged in work under points (a), (b) and (c) mentioned on page 165 — would, I contend, pay for enough staff to run full-time diploma courses in teaching in higher education. Is this not a viable business? The only difficulty I foresee is that the whole operation depends on the size of attrition and the numbers 'rescued' by such services. But attrition, we may safely assume, will always occur. The adamant stand and boisterous, non-conforming individuality of young people will, I ardently hope, always be there to challenge the most promising, foolproof, monolithic blueprints of perfection of any social institution. The only problem that can arise is the effectiveness of the 'rescue' operations. Will the people appointed to do the combined job of counselling, research and teaching be versatile enough to do it? Basically, there is nothing very difficult about it. Most people can and do learn most things, provided they learn, even quite late in life, that the competence in learning is largely a matter of teaching oneself how to learn as one goes along, and that facilitation of learning how to learn is the prime concern of a teacher worth his salt.

The proposals I have made above are only an extension of my continued work in all those four areas over the years of my service in education. But mine was only a microcosm of experience growing slowly, from a need to cope with daily challenges, into a spark of positive awareness and thus into a conviction, that it is possible to teach oneself what can be done to enhance other people's competence in learning. This conviction can, I think, be expanded into a more enterprising and more effective help for students.

REFERENCES

Allport, G. W. (1955). *Personality: a psychological interpretation.* London: Constable.

Ban, T. A. (1966). *Conditioning and Psychiatry.* London: Allen and Unwin.

Bandura, A. (1969). *Principles of Behaviour Modification.* New York: Holt, Rinehart and Winston.

Bannister, D. (1962). Personal Construct Theory: a summary and experimental paradigm. *Acta Psychologica, 20(2)* 104.

Batty, W. R. H. and Wankowski, J. A. (1974). *Admission Grades, Temperament and Degrees of Chemistry Students.* University of Birmingham Educational Survey and Counselling Unit. Mimeograph.

Berg, C. (1957). *Being Lived by my Life.* London: George Allen and Unwin.

Bevan-Jones, H. (1974). *Degree Achievement, Use of Welfare Services and Reported Experience of Anxiety Depression.* Educational Survey and Counselling Unit, University of Birmingham. Mimeograph.

Bonboir, A. (ed.) (1976). Louvain-la-Neuve Congress: 'Instructional design in Higher Education'. *Proceedings. Louvain: Universite Catholique de Louvain.*

Brennan, J. L. & Percy, K.A. (1976). What do students want? An analysis of staff and student perceptions in British higher education. Paper presented at *The 2. Congress of the European Association for Research and Development in Higher Education,* Louvain-la-Neuve.

Borkovec, T. D. (1976). Physiological and Cognitive Process in the Regulation of Anxiety. In Schwartz, G. E. and Shapiro D. (ed.) *Consciousness and Self-Regulation, Vol. 1.* New York, London: Wiley and Sons.

Browski, W. (1979). Documentary Display of Foksal Gallery in Krakow. In Cordelia Oliver: *Edinburgh, Awangarda Polska.* London: The Guardian, September 1979.

Buzan, T. (1975). *Use Your Head.* London: B.B.C. Publications.

Buzan, T. (1977). *How to make the most of your Mind.* London: Colts Books Ltd.

Chandler, E. (1978). *Student Counselling, When and Why?* Exeter University Teaching Services. Exeter.

Chibnall, B. (1979). The Sussex Experience. In Hills, P.J. (ed.) *Study Courses and Counselling: Problems and Possibilities.* Research into Higher Education Monographs. The Society for Research into Higher Education. University of Surrey, Guildford, Surrey.

Choppin, B.H.L. (1973). *The Prediction of Academic Success.* Slough: National Foundation for Educational Research Publishing Company Ltd.

Da Costa, M. (1979). Profile of a Study Skill Workshop. In Hills, P.J. (ed.) *Study Courses and Counselling: Problems and Possibilities.* Research into Higher Education Monographs. The Society for Research into Higher Education, University of Surrey, Guilford, Surrey.

Dobrowolski, B. A. (1958). *Pisma Pedagogiczne.* Volume 1, Warszawa: PZWS.

Elton, L.R.B., Hodgson, K. and O'Connell, S. (1979). Study Counselling at the University. In Hills, P.J. (ed.) *Study Courses and Counselling: Problems and Possibilities.* Research into Higher Education Monographs. The Society for Research into Higher Education, University of Surrey, Guildford, Surrey.

Elton, L. R. B. and Laurillard, D. M. (1979). Trends in Research on Students Learning. *Studies in Higher Education. Vol. 4* No. 1, March 1979.

Entwistle, N. J. and Wilson, J. D. (1977). *Degrees of Excellence: The Academic Achievement Game.* London: Hodder and Stoughton.

Entwistle, N. J. and Percy, K. A. (1974). *Lectures in Higher Education 1973-74.* Department of Educational Research, University of Lancaster. Mimeograph.

Erikson, E. H. (1959). *Young Man Luther.* London: Faber and Faber.

Erikson, E. H. (1967). *Childhood and Society.* Harmondsworth: Penguin.

Erikson, E. H. (1971). *Identity, Youth and Crisis.* London: Faber and Faber.

Eysenck, H. J. (1965). *Facts and Fiction in Psychology.* Harmondsworth: Penguin.

Eysenck, H. J. (1975). The Learning Theory Model of Neurosis — A New Approach. *Behav. Res. and Therapy, 14,* 251-267. London: Pergamon Press.

Eysenck, H. J. (1975). Review of Wankowski and Cox (1973). *Educational Review, Volume 27* No. 2.

Eysenck, H. J. and Wilson, G. D. (1976). *A Textbook of Human Psychology.* Lancaster: M. T. P. Press Ltd.

Eysenck, H. J. and Frith, C. D. (1977). *Reminiscence, Motivation and Personality; a Case Study in Experimental Psychology.* New York and London: Plenum Press.

Fazakerley, M. (1972). Wastage: a Survey of a Sample of Early Leavers from a Polytechnic Department of Education. An Unpublished Paper. In *Discussion of Papers Presented at Eighth Annual Conference of the Society for Research into Higher Education 1972.*

Freud, S. (1949). *An Outline of Psychoanalysis.* New York: Norton.

Furneaux, W. D. (1961). *The Chosen Few.* Oxford: Oxford University Press.

Furneaux, W. D. (1962). The Psychologist and the University. *Universities Quarterly 17(1)* London: Turnstile Press Ltd.

Gibbs, G. and Northedge, A. (1979). Helping Students to Understand their Own Study Methods. *British Journal of Guidance and Counselling, Vol. 7,* No. 1, January 1979.

Glover, E. (1955). *The Techniques of Psycho-Analysis.* London: Bailliere, Tindall and Cox.

Goldman, G. (1979). A Contract for Academic Improvement. In Hills, P.J. (ed.) *Study Courses and Counselling: Problems and Possibilities.* Research into Higher Education Monographs. The Society for Research into Higher Education, University of Surrey, Guildford, Surrey.

Goldman, G. (1979). When 'Knowing How' is Not Enough. *British Journal of Guidance and Counselling, Vol. 7,* No. 1, Janaury 1979.

Goldschmid, M. L. and Brun, J. (1979). The Evaluation of Different Forms of Individualized Instructions in Higher Education. *Paper Presented at the Third International Congress of the European Association for Research and Development in Higher Education.* Klagenfurt University Klagenfurt (January, 1979).

Grey Walter, W. (1961). *The Living Brain.* Harmondsworth: Penguin.

Gratzer, W. (1979/80). 'Research: the enemy of scholarship' and 'Minds over Matter'. Manchester and London: *The Guardian, October 11th 1979 and January 10th 1980.*

Hajnal, J. (1972). *The Student Trap.* Harmondsworth: Penguin.

Hari-Augstein, E. and Thomas, L. F. (1979). Learning Conversations: a Person-Centred Approach to Self-Organised Learning. *British Journal of Guidance and Counselling. Vol. 7,* No. 1, January 1979.

Hatch, S. (1972). Change and Dissent in the Universities. In Butcher, H. J. and Rudd, E. (eds.) *Contemporary Problems in Higher Education,* Maidenhead: McGraw-Hill.

Hills, P. J. (1979). *Study Courses and Counselling: Problems and Possibilities.* Hills, P. J. (ed.) Society for Research into Higher Education, University of Surrey, Guilford, Surrey.

Hills, P.J. and Potter F. W. (1979). Group Counselling and Study Skills. In Hills. P. J. (ed.) *Study Courses and Counselling: Problems and Possibilities.* Research into Higher Education Monographs. The Society for Research into Higher Education, University of Surrey, Guildford, Surrey.

Holder, R. L. and Wankowski, J. A. (1980). *Personality and Academic Performance of Students at University.* Research into Higher Education Monographs. The Society for Research into Higher Education, University of Surrey, Guilford, Surrey.

Hudson, L. (1970). *Frames of Mind,* Harmondsworth: Pelican.

Huxley, A. (1937). *Ends and Means.* London: Chatto and Windus.

Jacobsen, B. F. (1978). Studenter og studievansker. *Forskning fra Psykologisk Institutt i Bergen,* 1978, *2.*

James, D. (1979). Counselling the Mature Student. In Hills, P.J. (ed.) *Study Courses and Counselling: Problems and Possibilities.* Research into Higher Education Monographs. The Society for Research into Higher Education, University of Surrey, Guildford, Surrey.

James, H. (1964). Madam de Mouves. In Edel, L. *The Complete Tales of Henry James, Vol. 3.* Rupert Hart-Davies.

James, W. (1890). *The Principles of Psychology.* New York: Henry Holt.

Jusserand, J. J. (1889). *English Wayfaring Life in the Middle Ages.* London: Methuen.

Katkin, E. S. (1975). Electrodermal Lability: A Psychophysiological Analysis of Individual Differences in Response to Stress. In Sarason, I. G., and Spielberger, C. D. (eds.) *Stress and Anxiety.* New York, London: John Wiley and Sons.

Kelly, G. A. (1955). *The Psychology of Personal Constructs. Vol. 1 and 2.* New York: Methuen.

Kelly, G. A. (1963). The Autobiography of a Theory. Unpublished Manuscript. Ohio State University. In Bannister, D. and Mair, J.M.M. (1968). *The Evaluation of Personal Construct Theory.* London and New York: Academic Press.

Kiell, N. (1964). *The Universal Experience of Adolescence.* London: University of London Press.

Kipnis, D. (1971). *Character Structure and Impulsiveness.* London: Academic Press.

Kozielecki, J. (1977). *Koncepcje Psychologiczne Czlowieka.* Warszawa: Panstwowy Instytut Wydawniczy.

Kwiatkowski, J. W. (1973). *A Study of Academic Attitudes and their Relationship to Personality.* Department of Mathematical Statistics, University of Birmingham. Unpublished Thesis.

Lambourn, D. (1979). Seeing as a Model for Learning, In the *Proceedings of a Joint Conference of the Society for Research into Higher Education/ Staff Development and Educational Methods Unit, Manchester Polytechnic Conference Papers,* No. 27.

Lewis, W. A. (1962). Education and Economic Development. *International Social Science Journal, Volume XIV.*

Lewis, H. (1974). How to Prepare for University. *University of Leeds Reporter, 16 December, 1974.*

Luria, A. R. (1973). *The Working Brain.* Penguin Modern Psychology Texts. Harmondsworth: Penguin.

Maclay, I. (1968). A Random Sample of University Undergraduates. *Universities Quarterly, 23(1).*

MacMurray, J. (1961). *Persons in Relation.* London: Faber and Faber.

Malleson, N. (1972). Student Wastage in the United Kingdom. In Butcher J. H. and Rudd E. (eds.) *Contemporary Problems in Higher Education.* Maidenhead: McGraw-Hill.

Manske, M. E. & Davies, G. A. (1968). Effects of simple instructional biases upon performance in the Unusal Uses Test. *Journal of General Psychology,* 79, 25-33.

Medawar, P. B. (1972). *The Hope of Progress.* London: Methuen.

Meichenbaum, D., Turk, D. and Burnstein, S. (1975). The Nature of Coping with Stress. In Sarason, I. G. and Spielberger, C. D. (eds.) *Stress and Anxiety Vol. 2.* New York: John Wiley and Sons.

Meichenbaum, D. (1976). Towards a Cognitive Theory of Self-Control. In Schwartz, G. E. and Shapiro, D. (eds.) *Consciousness and Self-Regulation, Vol. 1.* New York, London: Wiley and Sons.

Meichenbaum, D. (1977). *Cognitive Behaviour Modification.* New York and London: Plenum Press.

Meyer, B. C. (1967). *Joseph Conrad: a Psychoanalytic Biography.* Princeton, New Jersey: Princeton University Press.

Morris, L. W., Brown, N. R., and Halbert, B. L. (1977). Effects of Symbolic Modelling on the Arousal of Cognitive and Affective Components of Anxiety in Pre-School Children. In Sarason, I. G. and Spielberger, C.D. (eds.) *Stress and Anxiety Vol. 4.* New York: Wiley and Sons.

Musgrove, F. (1971). *Patterns of Power and Authority in English Education.* London: Methuen.

Murray, H. A. (1938). *Exploration in Personality.* New York: Oxford University Press.

Nelson-Jones, R. and Toner, H. L. (1979). Counselling Approaches to Increasing Students' Learning Competence. In Hills, P.J. (ed.) *Study Courses and Counselling: Problems and Possibilities.* Research into Higher Education Monographs. The Society for Research into Higher Education, University of Surrey, Guilford, Surrey.

Nielsen, G. (1971). *Prediksjon av problemløsere.* Thesis on file, University of Oslo.

Nixon, P. G. F. (1976). The Human Function Curve, with Special Reference to Cardiovascular Disorders. *The Practitioner, (1976) 217, 765 and 935.*

Nunn, Sir P. (1949). *Education, its Data and First Principles.* London: Arnold.

Oleron, P. (1978). Development of Cognitive Skills. In Lesgold, A. M. (ed.) *Cognitive Psychology and Instructions.* New York: Plenum.

Parkyn, G. W. (1967). *Success and Failure at the University.* Wellington: New Zealand Council for Educational Research.

Peel, E. A. (1956). *The Psychological Basis of Education.* Edinburgh: Oliver and Boyd.

Peczak, M. (1976). Fear and Perceiving of Danger by People Diagnosed as of High and Low Neuroticism. *Acta Universitatis Wratislaviensis, Prace Pedagogiczne iv.* Wroclaw: Wydawnictwo Uniwersytetu Wroclawskiego.

Phillips, B. N., Martin, R. P. and Meyers, J. (1972). Interventions in Relation to Anxiety in School. In Spielberger, C. D. (ed.) *Anxiety: Current Trends in Theory and Research.* New York: Academic Press.

Pickering, G. (1974). *Creative Malady.* London: George Allen and Unwin.

Pope, A. (1711). An Essay on Criticism. In Croker, W. J. (1871). *The Works of Alexander Pope,* London: John Murray.

Raaheim, K. (1964). Analysis of the missing part in problem situations. *Scandinavian Journal of Psychology,* 5, 149-152.

Raaheim, K. (1974). *Problem Solving and Intelligence,* Bergen, Oslo, Tromsø: Universitetsforlaget.

Raaheim, K. (1976). Do We Need Convergent Thinking? *Paper Presented at the 21st International Congress of Psychology. Paris, July 1976.* Unpublished.

Rashdall, H. (1942). *The Universities of Europe in the Middle Ages.* Oxford: Oxford University Press.

Reid, W. A. (1971). *The Universities and the Sixth Form Curriculum, Report No. 1.* University of Birmingham and Schools Council Sixth Form and Examination Project. Mimeograph.

Reid, W. A. (1972). *The Universities and the Sixth Form Curriculum: Schools Council Research Studies,* Basingstoke: MacMillan Education Ltd.

Reid, W. A. (1979). Making the Problem fit the Method: A Review of the 'Banbury Enquiry'. *Journal of Curriculum Studies, Vol. 11,* No. 2, Europe Edition, Glasgow: Collins Educational.

Ryle, A. (1972). Student Health and Counselling. In Butcher, H. J. and Rudd, E. *Contemporary Problems in Higher Education.* Maidenhead: McGraw-Hill.

Robbins, (1963). *Robbins Committee: Higher Education,* London: H.M.S.O.

Rozycka, J. (1979). Neurotyzm w Aspekcie Psychologicznym na Podstawie Badan Empirycznych (The Psychological Aspect of Neuroticism on the basis of Empirical Investigations). *Acta Universitatis Wratislaviensis No. 483. Prace Psychologiczne XV.* Wroclaw: Wydawnictwo Uniwersytetu Wroclawskiego.

Saenger-Ceha, M.M.Th. (1970). *Psychological and Social Factors in Student Drop-Out.* Amsterdam: Swets and Zeitlinger.

Sandven, J. (1979). Conditions for Self-Realization. A Theoretical Discussion. *Scandinavian Journal of Educational Research, 23.*

Sandven, J. (1979a). Social Sensitivity as a Factor in the Teaching Process; A Theoretical Discussion and Experimental Contribution. *Scandinavian Journal of Educational Research, 23.*

Seligman, M.E.P. (1975). *Helplessness; on Depression, Development and Death.* San Francisco: W. H. Freeman and Co.

Shakespeare, W. (1947). As You Like It. In *The Works of William Shakespeare Gathered in One Volume.* Oxford: The Shakespeare Head Press.

Smith, C. U. M. (1970). *The Brain: Towards Understanding.* New York: Putnam's.

Spielberger, C. D. (1972). Conceptual and Methodological Issues in Anxiety Research. In Spielberger, C. D. (ed.) *Anxiety: Current Trends in Theory and Research.* New York: Academic Press.

Stern, G. C. (1970). *People in Context: Measuring Person-Environment Congruence in Education and Industry.* New York: John Wiley and Sons.

Susulowska, M. and Necki, Z. (1977). *Psychologiczna Analiza Przebiegu Studiow Wyzszych* (Psychological Analysis of Progress Through Higher Education) Warszawa: Panstwowe Wydawnictwo Naukowe.

Schwartz, G. E. and Shapiro, D. (1976). *Consciousness and Self-Regulation. Vol. 1.* London and New York: John Wiley and Sons.

Taylor, P. H., Reid, W. A. and Holley, B. J. (1974). *The English Sixth Form.* London: Routledge & Kegan Paul.

Thorne, B. (1979). Study Skills — A Symposium of Practical Approaches in Higher Education. Introduction. *British Journal of Guidance and Counselling. Vol. 7,* No. 1, January 1979.

Truscott, B. (1964). *First Year at University.* London: Faber & Faber.

Tomkins, S. S. (1966). Affect and the Psychology of Knowledge. In Tomkins, S.S. and Izard, C. E. (eds.): *Affect, Cognition and Personality.* London: Tavistock, MacMillan.

Toynbee, P. (1979). Canterbury Cathedral Choir Boys. Manchester and London: *The Guardian 24th December 1979.*

University of Birmingham (1978). *Where to Go for Advice.* University of Birmingham Publications.

van Trotsenburg, E. A.(ed.) (1980). Klagenfurt Congress: *'Higher Education — A Field of Study'.* Proceedings of the Third Congress of the European Association for Research and Development in Higher Education. Frankfurt a.M: Peter D. Lang, Gmb. H. Publishing House.

Verreck, W. A. (ed.) (1974). Rotterdam Congress: *'Methodological Problems in Research and Development in Higher Education'.* Proceedings. Amsterdam: Swets and Zeitlinger.

Wankowski, J. A. (1969). *Random Sample: Motives and Goals in University Studies.* University of Birmingham Educational Survey and Counselling Unit. Mimeograph.

Wankowski, J. A. (1970). *G. C. E.'s and Degrees. Some Notes and Reflections on Studies of the Relationship Between Admission Requirements and Achievement at University.* University of Birmingham Educational Survey. Mimeograph.

Wankowski, J. A. (1972). Student Wastage: the Birmingham Experience. In Butcher, H. J. and Rudd, E. (eds.): *Contemporary Problems in Higher Education.* Maidenhead: McGraw-Hill.

Wankowski, J. A. (1973). Educational Counselling: A Helping Hand in Restoring Shattered Learning Competence. In the *Proceedings of a Conference of the British Student Health Association. 25th Edition, 1973.*

Wankowski, J. A. (1973a). Disenchanted Elite: In Flood-Page, C. and Gibson, J. *Motivation: Non-Cognitive Aspects of Students Performance,* London. Society for Research into Higher Education.

Wankowski, J. A. and Cox, J. B. (1973). *Temperament, Motivation and Academic Achievement: Studies of Success and Failure of a Random Sample of Students in One University.* University of Birmingham Educational Survey and Counselling Unit.

Wankowski, J. A. (1974). Teaching Method and Academic Success in Sixth Form and University. *Journal of Curriculum Studies Vol. 6.* No. 1, May 1974. Europe Edition, Glasgow: Collins Educational.

Wankowski, J. A. (1974a). Academic Degrees and Personality of Students in One British University. In Verreck, W. A. et al. (eds.) *Methodological Problems in Research and Development in Higher Education.* Amsterdam: Swets & Zeitlinger.

Wankowski, J. A. (1977). Learning How to Learn at University: the Case for an Experimental Centre. *British Journal of Guidance and Counselling. Volume 5* No. 1, January 1977.

Wankowski, J. A. (1979). Counselling the Individual Student, In Hills, P.G. (ed.) *Study Courses and Counselling: Problems and Possibilities,* Guildford: Society for Research into Higher Education, University of Surrey, Guildford, Surrey.

Wankowski, J. A. (1979a). Educational Counselling and Learning-through-Teaching. *British Journal of Guidance and Counselling. Volume 7* No. 1, January 1979.

Wankowski, J. A. (1979b). Statistics and Economics of Educational Counselling in one University. *British Journal of Guidance and Counselling. Volume 7* No. 1, January 1979.

Wankowski, J. A. (1980). A Search for Knowledge: the Student's Perception of his Courses. In the *Proceedings of a Joint Conference of the Society for Research into Higher Education/Staff Development and Educational Methods Unit, Manchester Polytechnic, Conference Papers No. 27.* Mimeograph.

Wankowski, J. A. (1980a). The Characteristics of Successful Students. *Paper Presented at the Annual Course on Admission to Higher Education, National Institution for Careers Education and Counselling, York. 1978* (Unpublished paper.)

Wankowski, J. A. (1980b). *Reluctance Towards Professional Training of University Teachers: 'Taboo' or Prudence?* University of Birmingham Educational Counselling Unit, University of Birmingham. (Unpublished paper.)

Weiner, I. B. (1970). *Psychological Disturbance in Adolescence.* New York, London: Wiley & Sons.

Wells, H. G. (1966). *Experiment in Autobiography, being the Autobiography of H. G. Wells.* London: Victor Gollancz and the Cresset Press.

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All those involved in the various problems of tuition would profit from a close study of this book. It should be found in every department, for the members of staff to peruse — if only to disagree with the message conveyed!

Wankowski's counselling work with individual students at the University of Birmingham — the first university in Britain to take up systematic research in the area of student difficulties in learning — has created no less than a world-wide interest.

At the University of Bergen, Norway, Raaheim has had the unique opportunity of drawing on years of experience in the experimental study of thinking and problem solving when arranging for new ways of attacking the learning problems found in the large lecture groups of today.

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